JOLIET PUBLIC SCHOOLS

DISTRICT NO. 7, CARBON COUNTY
P.O. BOX 590, 300 PARK STREET, JOLIET, MT 59041
P: 406-962-3541 F: 406-962-3958

Safety Policy Statement

It is the policy of **SCHOOL** to provide all employees with a safe and healthy workplace. An effective health and safety program is an integral part of conducting business; safety must be part of everything taking place within our operation, and it must be everyone's responsibility.

The SCHOOL will provide safe and healthful conditions for each of its employees; in return the SCHOOL expects each employee recognize their obligation to conduct themselves with regard not only for their own safety, but also for the safety of their fellow employees.

To ensure a safe working environment is maintained, all employees shall actively promote safety and accident prevention as an integral part of their normal job functions.

Each employee is responsible for implementing this policy by continually observing safety practices, guidelines, and standards throughout the workday.

Since safety and quality operations are integrated and inseparable, similar methods of control are required to address accident prevention as are used to maintain process quality, efficiency, and customer relations.

Of even more importance are the loss of earnings and physical injuries suffered by employees as a result of accidents. These factors justify a constant and intensive accident prevention program.

r	,
Signature	Date
Title	

Full cooperation of all employees is essential to successfully achieve this safety policy.

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General Health and Safety Policies

Purpose

This chapter covers general policies that may not be covered under other safety programs. The SCHOOL's policy is that all employees be provided with a safe and healthful place of employment. Identification of hazardous conditions may be accomplished at the planning and design stage, as a result of workplace inspections, or by employee reports. All recognized safety and health hazards should be eliminated or controlled as quickly as possible, subject to priorities based upon the degree of risk posed by the hazards. The preferred method of hazard abatement shall be through application of engineering controls or substitution of less hazardous processes or materials. Total reliance on personal protective equipment is acceptable only when all other methods are proven to be technically and/or economically infeasible.

Responsibilities

Management, supervisors and employees are responsible for following all safety program requirements and safety practices. If procedures or practices are identified as needing changes, these changes shall be accomplished through normal management review practice

Hazard Control

Substitution. The risk of injury or illness may be reduced by replacement of an existing process, material, or equipment with a similar item having more limited hazard potential Some examples include: brush painting instead of spray painting to reduce inhalation hazards, welding instead of riveting to reduce noise levels, use of safety cans instead of bottles to store flammable liquids, etc. Care must be exercised in any substitution to ensure that the substitute materials are technically acceptable and to avoid introducing any new or unforeseen hazards.

Isolation. Hazards are controlled by isolation whenever an appropriate barrier or limiter is placed between the hazard and an individual who may be affected by the hazard. This isolation can be in the form of physical barriers, time separation, or distance. Examples include machine guards, electrical insulation, glove boxes, acoustical containment, and remote controlled equipment.

Ventilation. The control of a potentially hazardous airborne substance by ventilation can be accomplished by one or two methods: diluting the concentration of the substance by mixing with uncontaminated air or capturing and removing the substance at its source or point of generation. Local exhaust ventilation is generally the preferred and more economical method of hazard control. However, dilution ventilation can be very effective for the removal of large volumes of heated air or for the removal of low concentrations of non-toxic or low toxicity contaminants from minor and decentralized sources.

Administrative Control. This method of hazard mitigation depends on effective operating practices that reduce the exposure of individuals to chemical or physical hazards. These practices may take the form of limited access to high hazard areas, preventive maintenance programs to reduce the potential for leakage of hazardous substances, or adjusted work schedules, which involve a regimen of work in high hazard and low hazard areas. Adjusted work schedules are appropriate only when the hazard is recognized as having a limit below which nearly all workers may be repeatedly exposed without adverse effect.

Personal Protective Equipment This method of hazard control is least preferred because personal protective devices may reduce a worker's productivity, while affording less effective protection against the recognized hazard than other methods of control. Nevertheless, there are instances where adequate levels of risk reduction cannot be achieved through other methods, and personal protective devices must be used, either alone or in conjunction with other protective measures.

Hazard Control Principles

Hazardous conditions in the workplace may be prevented through appropriate actions when facilities are designed, when operating procedures are developed, and when equipment is purchased. Once hazards are identified, whether through inspection or complaint, immediate action shall be taken to avoid unreasonable danger.

Design Reviews. Safety and occupational health issues shall be considered, designed, and engineered into all facilities. Projects that involve potential health hazards such as toxic material, radiation, noise, or other health hazard shall be designed in accordance with established principles of good safety and industrial hygiene engineering.

Operating Procedures. Standard operating procedures or similar directives developed by the supervisor that are issued to direct the manner in which work is performed shall include appropriate health and safety requirements. Supervisors are encouraged to submit standard operating procedures. Recommendations for changes/additions to the procedures for safety and health purposes shall be submitted in writing to department managers.

Purchasing Procedures. Many hazards can be avoided by incorporating appropriate specifications for purchased equipment/material and contracted efforts that involve work at SCHOOL facilities. Employees responsible for purchasing or developing specifications for purchases should coordinate with the safety director for all new material or equipment purchases to ensure safety and health considerations have been addressed. Contracts that require work to be performed by contract personnel at SCHOOL facilities shall follow the Contractor Safety Program.

Interim Hazard Abatement Measures During the time needed to design and implement permanent hazard control measures, immediate, temporary measures are needed. Where engineering controls are not immediately applicable, administrative controls and/or personal protective equipment are appropriate for use as interim hazard abatement measures.

Permanent Hazard Abatement Engineering control methods are the preferred method of hazard control, followed by administrative control and personal protective equipment. Feasible engineering controls shall be used to reduce hazardous exposure, even when only partial reduction of exposure is possible through engineering methods.

Hazard Control Development

The following possible actions will be considered when recommendations are developed for prevention or reduction of hazards:

- 1. Avoiding, eliminating, or reducing deficiencies by engineering design, material selection or substitution;
- 2. Isolating hazardous substances, components, and operations from other activities, areas, personnel, and incompatible materials;
- 3. Incorporating "fail-safe" principles where failures would disable the system or cause a catastrophe through injury to personnel, damage to the equipment, or inadvertent operation of critical equipment;
- 4. Relocating equipment/components so that personnel access during operation, maintenance, repair or adjustment shall not result in exposure to hazards such as chemical burns, electrical shock, electromagnetic radiation, cutting edges, sharp points, or toxic atmospheres;
- 5. Providing suitable warning and notes of caution concerning required personnel protection in operation, assembly, maintenance, and repair instructions;
- 6. Providing distinctive markings on hazardous components, equipment, or facilities;

- 7. Requiring use of personal protective equipment when other controls do not reduce the hazard to an acceptable level;
- 8. Monitoring exposure to insure that engineering controls effectively reduce the hazard; and
- 9. Training employees to recognize hazards and take appropriate precautionary measures.

Hazard Reporting

Identification and reporting of potentially unsafe or unhealthful working conditions is the responsibility of all employees. All employees are encouraged to report unsafe or unhealthful working conditions to their immediate supervisor who will promptly investigate the situation and take appropriate corrective actions. Supervisors will contact the Safety Office for assistance as necessary. Supervisors will keep the reporting employee informed of all actions taken. Any employee may submit a written report of an unsafe or unhealthful working condition directly to the Safety Office.

Signs and Tags

Signs and tags are not intended as substitutes for preferred abatement methods such as engineering controls, substitution, isolation, or safe work practices. Rather, they are additional safety guidance and increase the employee's awareness of potentially hazardous situations.

Tags are temporary means of warning all concerned of a hazardous conditions, defective equipment, etc. Tags are not to be considered as a complete warning method, but should only be used until a positive means can be employed to eliminate the hazard; for example, a "Do Not Start" tag is affixed to a machine and is used only until the machine can be locked out, de-energized, or inactivated.

Danger Signs shall be used where an immediate hazard exists and specific precautions are required to protect personnel or property. The sign shall be of red, black, and white colors.

Danger Tags shall be placed on a damaged ladder or other damaged equipment, and immediate arrangements made for the ladder/equipment to be taken out of service and sent to be repaired.

Caution Signs shall be used to warn of a potential hazard or to caution against unsafe practices, and to prescribe the precaution that will be taken to protect personnel and property from mishap probability. The sign shall be of yellow and black colors.

Exit Signs shall be utilized to clearly identify the means of egress from a building or facility. Where the exit is not apparent, signs shall have an arrow indicating the direction of the exit.

Biological Hazard Warning Signs shall be used to signify the actual or potential presence of a biological hazard and to identify equipment, containers, rooms, experimental animals, etc., which contain or are contaminated with viable hazardous agents. The symbol on these signs shall be the standard fluorescent orange or orange-red color.

Hazard Communication

Many SCHOOL employees perform operations, which commonly require the use of chemicals that have inherent chemical and physical hazards. General office activities may also involve working with products, which contain regulated chemicals. The OSHA Hazard Communication Standard (29 CFR 1910.1200) requires employers to provide information to their employees concerning the hazardous chemicals in the workplace through a written program, training sessions, materials safety data sheets, labels and warnings, and other pertinent information. All employees and management shall fully comply with the SCHOOL Hazard Communication Program requirements/

Noise

Employee exposure to noise of sufficient intensity and duration can result in hearing damage. Noise-induced hearing loss rarely results from just one exposure; it can progress unnoticed over a period of years. Initial noise-induced hearing loss occurs at the higher frequencies where the consonant portion of speech is found, making communications difficult. Engineering controls such as mufflers on heavy equipment exhausts or on air release valves are required where possible. 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. Employees will be given the opportunity to select hearing protective devices from a variety of suitable ones provided by the SCHOOL. Audiometric testing will be provided to all employees with exposure to noise levels of 80 dB(A) or greater.

Housekeeping

All places of employment including outside areas should be kept as clean as the nature of the work allows but must be kept free and clear of debris, trash, scrap, spills or other extraneous materials, which could create a health hazard or cause an accident. Proper layout, spacing and arrangement of equipment, facilities, and machinery are essential to good housekeeping, allowing orderly operation and avoiding congestion.

Maintain the floor of every work area so far as practicable, in a dry condition. Where wet processes are used, maintain drainage and provide removable false floors, platforms, mats, or other dry standing places. When necessary or appropriate, provide waterproof footgear.

To facilitate cleaning, every floor, working place, and passageway will be as smooth as feasible but allowing for the need to provide non-skid flooring where appropriate. Floors will not be cleaned with flammable materials or materials creating significant toxic hazards.

Emergency Evewash Facilities

Emergency eyewash facilities meeting the requirements of ANSI Z358.1 shall be provided in all areas where the eyes of any employee may be exposed to corrosive materials. All such emergency facilities shall be located where they are easily accessible to those in need.

Accident Investigation

Purpose

Accident prevention and control of hazards is the result of a well-designed and executed safety and health program. One of the keys to a successful program includes unbiased, prompt and accurate accident investigations. The basic purpose of these investigations is to determine measures that can be taken to prevent similar accidents in the future. This chapter addresses:

- **☒** SCHOOL Policy
- **☒** Responsibilities
- **☒** Role of Supervisors
- **☒** Investigation Procedures

Policy

It is the policy of The SCHOOL that all work related accidents, injuries and illnesses are to be conducted in a professional manner to identify probable causes and are used to develop specific management actions for the prevention of future accidents.

Responsibilities

Management

Conduct accident prevention and investigation training for supervisors

Ensure all accidents and injuries are properly investigated

Ensure immediate and long term corrective actions are taken to prevent reoccurrence

Maintain Accident Reports permanently on file

Ensure proper entries are made on the OSHA 300 Log and First Report of Injury

Provide all necessary medical care for injured workers

Supervisors

Conduct immediate initial accident investigations

Report all accidents to management as soon after the event as possible

Collect and preserve all evidence that may be useful in an investigation

Conduct interviews of witnesses in a polite professional manner

Do not attempt to find or assign blame for accidents

Take action to protect people and property from secondary effects of accidents

Employees

Immediately report all accidents & injuries to their supervisor

Assist as requested in all accident investigations

Report all hazardous conditions and near misses to supervisors

Hazard Control

Engineering Controls - There are numerous engineered safeguards throughout the facility used to protect employees and prevent exposure to hazards. Examples of engineering controls are machine guards, safety controls, isolation of hazardous areas, monitoring devices, etc. Specific engineering controls are addressed in other chapters of the SCHOOL safety manual and in equipment and process procedures.

Administrative Controls - These controls involve the use of procedures, assessments, inspection, records to monitor and ensure safe practices and environments are maintained. Other administrative controls are in place to identify new hazards and implement corrective action. Examples of administrative controls are periodic inspections, equipment operating and maintenance procedures, hazard analysis, selection and assignment of personal protective equipment, etc.

Training Controls - This aspect of hazard control is used to ensure employees are fully and adequately trained to safely perform all tasks to which they are assigned. No employee is to attempt any task without proper training in the equipment used, required personal protective equipment, specific hazards and their control and emergency procedures. Examples of training controls are initial new hire safety orientation, job specific safety training and periodic refresher training.

Supervisor Involvement - In most cases, the immediate area supervisor will conduct the initial phase of an accident investigation. This initial activity is primarily a recording of facts involved in the accident, list of affected employees and witnesses. Direct supervisors are familiar with employee's work environment & assigned tasks. Supervisors must take the accident situation under control and immediately eliminate or control hazards to others.

Immediate Steps

- 1. Provide First Aid for any injured persons.
- 2. Eliminate or control hazards
- 3. Document accident scene information to determine the cause.
- 4. Interview witnesses immediately.

Accident Prevention

Accidents are usually complex. An accident may have 10 or more events that can be causes. A detailed analysis of an accident will normally reveal three cause levels: basic, indirect, and direct. At the lowest level, an accident results only when a person or object receives an amount of energy or hazardous material that cannot be absorbed safely. This energy or hazardous material is the DIRECT CAUSE of the accident. The direct cause is usually the result of one or more unsafe acts or unsafe conditions, or both. Unsafe acts and conditions are the INDIRECT CAUSES or symptoms. In turn, indirect causes are usually traceable to poor management policies and decisions, or to personal or environmental factors. These are the BASIC CAUSES.

Most accidents are preventable by eliminating one or more causes. Accident investigations determine not only what happened, but also how and why. The information gained from these investigations can prevent recurrence of similar or perhaps more disastrous accidents. Accident investigators are interested in each event as well as in the sequence of events that led to an accident. The accident type is also important to the investigator. The recurrence of accidents of a particular type or those with common causes shows areas needing special accident prevention emphasis.

Initial Investigation Procedures

The initial investigation has three purposes:

- 1. Prevent further possible injury and property damage
- 2. Collect facts about the accident
- 3. Collect and preserve evidence

Steps

- a. Secure the area. Do not disturb the scene unless a hazard exists.
- b. Prepare the necessary sketches and photographs. Label each carefully and keep accurate records.
- c. Interview each victim and witness. Also interview those who were present before the accident and those who arrived at the site shortly after the accident. Keep accurate records of each interview. Use a tape recorder if desired and if approved.

Determine

- a. Abnormalities before the accident.
- b. Where the abnormality occurred.
- c. When it was first noted.
- d. How it occurred.

Follow-up Accident Investigation

The follow-up investigation is used to analyze data and determine the causes and corrective actions necessary to prevent reoccurrence.

Steps

- a. Analyze the data obtained in the initial investigation
- b. Repeat any of the prior steps, if necessary.
- c. Determine
 - 1. Why the accident occurred.
 - 2. A likely sequence of events and probable causes (direct, indirect, basic).
- d. Determine the most likely causes.
- e. Conduct a post-investigation briefing.
- f. Prepare a summary report, including the recommended actions to prevent a recurrence.

An investigation is not complete until all data are analyzed and a final report is completed. In practice, the investigative work, data analysis, and report preparation proceed simultaneously over much of the time spent on the investigation.

Conducting Interviews

In general, experienced personnel should conduct interviews. All interviews should be conducted in a quite and private location. It is essential to get preliminary statements as soon as possible from all witnesses. Investigators should not provide any facts to the witness - only ask non-leading questions.

- a. Explain the purpose of the investigation (accident prevention) and put each witness at ease.
- b. Listen, let each witness speak freely, and be professional, courteous and considerate.
- c. Take notes without distracting the witness. Use a tape recorder only with consent of the witness.
- d. Use sketches and diagrams to help the witness.
- e. Emphasize areas of direct observation. Label hearsay accordingly.
- f. Do not argue with the witness.
- g. Record the exact words used by the witness to describe each observation.
- h. Identify each witness (name, address, occupation, years of experience, etc.).

Accident Analysis

Accidents represent problems that must be solved through investigations. Formal procedures are helpful in identifying and solving problems. This section discusses two of the most common procedures: Change Analysis and Job Safety Analysis.

Change Analysis

As its name implies, this technique emphasizes change. To solve a problem, an investigator must look for deviations from the norm. Consider all problems to result from some unanticipated change. Make an analysis of the change to determine its causes. Use the following steps in this method:

- 1. Define the problem (What happened?).
- 2. Establish the norm (What should have happened?).
- 3. Identify, locate, and describe the change (What, where, when, to what extent).
- 4. Specify what was and what was not affected.
- 5. Identify the distinctive features of the change.
- 6. List the possible causes.
- 7. Select the most likely causes.

Job Safety Analysis

Job safety analysis (JSA) is part of many existing accident prevention programs. In general, JSA breaks a job into basic steps, and identifies the hazards associated with each step. The JSA also prescribes controls for each hazard. A JSA is a chart listing these steps, hazards, and controls. Review the JSA during the investigation if a JSA has been conducted for the job involved in an accident. Perform a JSA if one is not available. Perform a JSA as a part of the investigation to determine the events and conditions that led to the accident.

Investigation Report

An accident investigation is not complete until a report is prepared and submitted to management. To be and effective tool, an accident report should be clear and concise. The purpose of the investigation is to prevent future accidents. The following outline has been found especially useful in developing the information to be included in the formal report:

- 1. Background Information
 - a. Where and when the accident occurred

- b. Who and what were involved
- c. Operating personnel and other witnesses
- 2. Account of the Accident (What happened?)
 - a. Sequence of events
 - b. Extent of damage
 - c. Accident type
 - d. Agency or source (of energy or hazardous material)
- 3. Discussion (Analysis of the Accident **HOW**; **WHY**)
 - a. Direct causes (energy sources; hazardous materials)
 - b. Indirect causes (unsafe acts and conditions)
 - c. Basic causes (management policies; personal or environmental factors)
- 4. Recommendations (to prevent a recurrence) for immediate and long-range action to remedy:
 - a. Basic causes
 - b. Indirect causes
 - c. Direct causes (such as reduced quantities or protective equipment or structures)

Possible Causes

Obvious accident causes are most probably symptoms of a "root cause" problem. Some examples of Unsafe Acts and Unsafe Conditions, which may lead to accidents, are:

Unsafe Acts

Unauthorized Operation of Equipment

Running - Horse Play Not Following Procedures By-Passing Safety Devices

Not Using Protective Equipment

Under influence of Drugs or Alcohol

Unsafe Conditions

Ergonomic Hazards

Environmental Hazards

Inadequate Housekeeping

Blocked Walkways

Improper or Damaged PPE

Inadequate Machine Guarding

Recommendations

As a result of the finding is there a need to make changes to:

Employee Training

Work Station Design

Policies or Procedures

Records

All accident reports will be maintained on file permanently. They shall receive timely review by upper management to ensure proper corrective actions have been taken.

Housekeeping

Simple Housekeeping methods can prevent slip-trip-fall hazards:

- All work areas, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition.
- The floor of every area shall be maintained in a clean and, so far as possible, a dry condition. Where wet processes are used, drainage shall be maintained and gratings, mats, or raised platforms shall be provided.
- Every floor, work area and passageway shall be kept free from protruding nails, splinters, holes, or loose boards.

Aisles and Passageways

- Aisles and passageways shall be kept clear and in good repair with no obstruction across or in aisles that could create a hazard.
- Permanent aisles and passageways shall be appropriately marked.
- Where mechanical handling equipment is used, aisless shall be sufficiently wide. Improper aisle widths
 coupled with poor housekeeping and vehicle traffic can cause injury to employees, damage the
 equipment and material, and can limit egress in emergencies.

Guarding Floor & Wall Openings

Floor openings and holes, wall openings and holes, and the open sides of platforms may create hazards. People may fall through the openings or over the sides to the level below. Objects, such as tools or parts, may fall through the holes and strike people or damage machinery on lower levels.

Protection for Floor Openings

Standard railings shall be provided on all exposed sides of a stairway opening, except at the stairway entrance. For infrequently used stairways, where traffic across the opening prevents the use of a fixed standard railing, the guard shall consist of a hinged floor opening cover of standard strength and construction along with removable standard railings on all exposed sides, except at the stairway entrance.

A "standard railing" consists of top rail, mid rail, and posts, and shall have a vertical height of 42 inches nominal from the upper surface of top rail to floor, platform, runway, or ramp level. Nominal height of mid rail is 21 inches.

A "standard toe board" is 4 inches nominal in vertical height, with not more than ¼-inch clearance above floor level.

Floor openings may be covered rather than guarded with rails. When the floor opening cover is removed, a temporary guardrail shall be in place, or an attendant shall be stationed at the opening to warn personnel.

Every floor hole into which persons can accidentally walk shall be guarded by either:

- 1. A standard railing with toe board, or
- 2. A floor hole cover of standard strength and construction.

While the cover is not in place, the floor hole shall be constantly attended by someone or shall be protected by a removable standard railing.

Protection of Open-Sided Floors, Platforms, and Runways

Every open-sided floor or platform 4 feet or more above adjacent floor or ground level shall be guarded by a standard railing on all open sides, except where there is an entrance to a ramp, stairway, or fixed ladder. The railing shall be provided with a toe board wherever, beneath the open sides:

- 1. Persons can pass,
- 2. There is moving machinery, or
- 3. There is equipment with which falling materials could create a hazard.

A standard railing, or the equivalent, on all sides 4 feet or more above floor or ground level, shall guard every runway. Wherever tools, machine parts, or materials are likely to be used on the runway, a toe board shall also be provided on each exposed side.

Stairway Railings and Guards

Every flight of stairs with four or more risers shall have standard stair railings or standard handrails as specified below. Stair width is measured clear of all obstructions except handrails.

- 1. On stairways less than 44 inches wide having both sides enclosed, at least one handrail shall be affixed, preferably on the right side descending.
- 2. On stairways less than 44 inches wide with one open side, at least one stair rail shall be affixed on the open side.
- 3. On stairways less than 44 inches wide having both sides open, two stair rails shall be provided, one for each side.
- 4. On stairways more than 44 inches wide, but less than 88 inches, one handrail shall be provided on each enclosed side and one stair rail on each open side.
- 5. On stairways 88 inches or more in width, one handrail shall be provided on each enclosed side, one stair rail on each open side, and one intermediate stair rail placed approximately in the middle of the stairs.

A "standard stair railing" (stair rail) shall be of construction similar to a standard railing, but the vertical height shall be not more than 34 inches nor less than 30 inches from the upper surface of the top rail to the surface of the tread in line with the face of the riser at the forward edge of the tread.

Personal Protective Equipment

Purpose

The SCHOOL provides all Employees with required PPE to suit the task and known hazards. This Chapter covers the requirements for Personal Protective Equipment with the exception of PPE used for respiratory protection or PPE required for hazardous material response to spills or releases. Applicable OSHA Standards are 1910 Subpart 1 App B and 1910.120 App B, 132, 133, 136, and 138

General Rules

Design.

All personal protective equipment shall be of safe design and construction for the work to be performed.

Hazard assessment and equipment selection

Hazard analysis procedures shall be used to assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the following actions will be taken:

- Select, and have each affected Employee use, the proper PPE
- Communicate selection decisions to each affected Employee
- Select PPE that properly fits each affected employee.

Defective and damaged equipment

Defective or damaged personal protective equipment shall not be used.

Training

All Employees who are required to use PPE shall be trained to know at least the following:

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

Each affected Employee shall demonstrate an understanding of the training and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE.

Certification of training for PPE is required by OSHA and shall be accomplished by using the *Job Safety Checklist* to verify that each affected Employee has received and understood the required PPE training.

Personal Protective Equipment Selection

Controlling hazards.

PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.

Selection guidelines

The general procedure for selection of protective equipment is to:

- **a**) Become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.e., splash protection, impact protection, etc.;
- **b**) Compare the hazards associated with the environment; i.e., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment;
- c) Select the protective equipment, which ensures a level of protection greater than the minimum required to protect employees from the hazards
- **d**) Fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users be made aware of all warning labels for and limitations of their PPE.

Fitting the Device

Careful consideration must be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. Continued wearing of the device is more likely if it fits the wearer comfortably. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

Devices with adjustable features

Adjustments should be made on an individual basis for a comfortable fit that will maintain the protective device in the proper position. Particular care should be taken in fitting devices for eye protection against dust and chemical splash to ensure that the devices are sealed to the face. In addition, proper fitting of helmets is important to ensure that it will not fall off during work operations. In some cases a chinstrap may be necessary to keep the helmet on an employee's head. (Chinstraps should break at a reasonably low force, however, so as to prevent a strangulation hazard). Where manufacturer's instructions are available, they should be followed carefully.

Eye and Face Protection

Each affected employee shall use appropriate eye or face protection when exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

Each affected employee shall use eye protection that provides side protection when there is a hazard from flying objects. Detachable side protectors are acceptable.

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

Eye and face PPE shall be distinctly marked to facilitate identification of the manufacturer.

Each affected employee shall use equipment with filter lenses that have a shade number appropriate for the work being performed for protection from injurious light radiation. The following is a listing of appropriate shade numbers for various operations.

Filter Lenses for Protection Against Radiant Energy			
Operations	Electrode Size 1/32 in	Arc Current	Protective Shade
Shielded metal arc welding	Less than 3	Less than 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Torch brazing			3
Torch soldering			2

Note: as a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade, which gives sufficient view of the weld zone without going below the minimum. In oxy-fuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

Selection chart guidelines for eye and face protection

The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.

Source	Hazard	Protection
IMPACT - Chipping, grinding machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding	Flying fragments, objects, large chips, particles, sand, dirt, etc.	Spectacles with side protection, goggles, face shield For severe exposure, use face shield
HEAT-Furnace operation and arc welding	Hot sparks	Face shields, spectacles with side. For severe exposure use face shield.
CHEMICALS-Acid and chemical handling, degreasing, plating	Splash	Goggles, eyecup and cover types. For severe

		exposure, use face shield.
DUST - Woodworking, buffing, general, buffing, general dusty conditions.	Nuisance dust	Goggles, eye cup and cover type

Selection guidelines for head protection

All head protection is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important. Class A helmets, in addition to impact and penetration resistance; provide electrical protection from low-voltage conductors (they are proof tested to 2,200 volts). Class B helmets, in addition to impact and penetration resistance; provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts). Class C helmets provide impact and penetration resistance (they are usually made of aluminum which conducts electricity), and should not be used around electrical hazards.

Where falling object hazards are present, helmets must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors.

Foot Protection.

General requirements.

Each affected employee shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, or objects piercing the sole, and where employee's feet are exposed to electrical hazards.

Selection guidelines for foot protection

Safety shoes and boots provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate. Safety shoes or boots with impact protection would be required for carrying or handling materials such as packages, objects, parts or heavy tools, which could be dropped; and, for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing a foot injury.

Hand Protection.

General requirements.

Hand protection is required when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes.

Selection guidelines for hand protection

Selection of hand PPE shall be based on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified. Gloves are often relied upon to prevent cuts, abrasions, burns, and skin contact with chemicals that are capable of causing local or systemic effects following dermal exposure. There is no glove that provides protection against all potential hand hazards, and commonly available glove materials provide only limited protection against many chemicals. Therefore, it is important to select the most appropriate glove for a particular application and to determine how long it can be worn, and whether it can be reused. It is also important to know the performance characteristics of gloves relative to the specific hazard anticipated; e.g., chemical hazards, cut hazards, flame hazards, etc. Before purchasing gloves, request documentation from the manufacturer that the gloves meet the appropriate test standard(s) for the hazard(s) anticipated. Other factors to be considered for glove selection in general include:

- (A) As long as the performance characteristics are acceptable, in certain circumstances, it may be more cost effective to regularly change cheaper gloves than to reuse more expensive types.
- (B) The work activities of the employee should be studied to determine the degree of dexterity required, the duration, frequency, and degree of exposure of the hazard, and the physical stresses that will be applied.

Selection of gloves for protection against chemical hazards:

- (A) The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects.
- (B) Generally, any "chemical resistant" glove can be used for dry powders
- (C) For mixtures and formulated products (unless specific test data are available), a glove should be selected on the basis of the chemical component with the shortest breakthrough time, since it is possible for solvents to carry active ingredients through polymeric materials.
- (D) Employees must be able to remove the gloves in such a manner as to prevent skin contamination.

BLOODBORNE PATHOGENS

With any potential exposure to blood borne pathogens (e.g., attempting to give first aid to a bleeding coworker), employees must follow these basic rules.

- 1. Wear rubber gloves.
- 2. Do not re-use gloves.
- 3. Wash your hands with soap and water after removing gloves.
- 4. Wear safety goggles if there is a potential for contaminants to splash into the eyes.
- 5. Wear a mask if there is a potential for contaminants to splash into the mouth or nose.
- 6. Wear additional protective clothing if the skin is not covered.
- 7. If you become exposed to blood borne pathogens, wash the area immediately and report the incident to management. Professional medical attention may then be provided, including any required hepatitis B vaccine.
- 8. Regulated waste must be properly bagged, labeled, and disposed of.
- 9. Blood borne pathogens cleanup and personal protective equipment is located at the main office. Please see the safety director.
- 10. Further information on blood borne pathogen control procedures can be obtained from your supervisor or the safety director.

Note: All employees who may possibly be affected must also familiarize themselves with the procedures regarding blood borne pathogens.

FIRE PREVENTION:

All employees have a responsibility in this area. The SCHOOL provides fire extinguishers for all SCHOOL buildings and vehicles.

There are three types of fires you should be familiar with:

TYPE A - Fires fueled by normal combustibles

TYPE B – Fires fueled by flammable liquids

TYPE C – Fires involving electrical wiring or components

Fire extinguishers are designed to extinguish different types of fires and are labeled to identify the type of fire they are to be used on.

The SCHOOL provides fire extinguishers rated ABC so they can work on all types of fires.

Good housekeeping in your work area can be your biggest contribution to fire prevention. Follow safe work practices when handling or storing flammable or combustible materials. Observe NO SMOKING signs and use ashtrays.

Know where fire extinguishers are located.

Report use of any fire extinguisher to the safety director so that it may be recharged.

Fire extinguishers will be checked monthly to ensure that they are operating properly by the safety director or management.

Note: Fire Extinguishers are to be used only by persons trained in proper firefighting techniques. Always operate within the scope of your training.

Hazard Communication Plan

Overview

The purpose of CFR, Title 29, Part 1910.1200, Hazard Communication Standard (HCS) is to ensure that the hazards of all produced or incorporated chemicals are evaluated and the information concerning these hazards is transmitted to both employers and employees. The standard also uses the Globally Harmonized System (GHS). This is an international approach to hazard communication, providing agreed criteria for classification of chemical hazards, and a standardized approach to label elements and safety data sheets. The GHS was negotiated in a multi-year process by hazard communication experts from many different countries, international organizations, and stakeholder groups. It is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labelling systems of other US agencies.

The standard mandates the evaluation of hazardous chemicals present in a workplace and requires training of employees regarding the hazardous chemicals and related prevention and protective measures for routine and non-routine tasks. As the GHS does not include any requirements regarding Hazards Communication Programs, OSHA is maintaining the provisions of the HCS 1994.

T

The Hazard	Communication Plan				
1. The H	1. The Hazard Communication Plan (HCP) consists of four major components:				
	Identification and inventory of all hazardous chemicals and listing on a Hazardous Chemical List (HCL).				
Acquisition of Safety Data Sheets (SDS) for each hazardous chemical listed on the HCL.					
Labelling of all hazardous chemicals with chemical name, hazards and warnings and the manufacturer's or importer's name and address, with reference to the appropriate Safety Data Sheet.					
Training of all employees about the hazardous chemicals in the workplace and of the Hazardous Communication Plan.					
 The (person in charge) is the coordinator for the Hazard Communication Plan. Copies of the Hazard Communication Standard and the Hazard Communication Plan will be maintained and available upon request. 					
Hazardous C	Chemicals List				
Thechemi	(department) will have responsibility for identifying and inventorying all hazardous icals.				
A current master list will be maintained at all times. New chemicals will be added as they are received and chemicals no longer inventories will be removed from the list as they are discarded. A formal inventory and updating of the list will be done annually.					
Each haza	ardous chemical must be cross-referenced to an appropriate Safety Data Sheet.				
The maste	The master HCL will be maintained in the (department name). Partial lists may be				

maintained in the various departments where hazardous chemicals are used.

Safety Data Sheets (SDS)	Safety	Data	Sheets	(SDS)
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fety	Data S	Sheets (SDS)
	hazaro	azard Communication Standard requires that SDSs be available to all employees for each lous chemical identified and used. If the employer receives a chemical container labelled as a l, an SDS is required.
		The (department name) will be responsible for acquiring and maintaining updated versions of all SDSs.
		The SDS will be written in English and will consist of all information listed below:
		The format of the 16-section SDS should include the following sections:
		Section 1. Identification
		Section 2. Hazard(s) identification
		 Section 3. Composition/information on ingredients
		Section 4. First-Aid measures
		Section 5. Fire-fighting measures
		Section 6. Accidental release measures
		Section 7. Handling and storage
		Section 8. Exposure controls/personal protection
		Section 9. Physical and chemical properties
		Section 10. Stability and reactivity
		Section 11. Toxicological information
		Section 12. Ecological information
		Section 13. Disposal considerations
		Section 14. Transport information
		Section 15. Regulatory information
		 Section 16. Other information, including date of preparation or last revision
	Harmo Section	DS must also contain Sections 12-15, to be consistent with the United Nations' Globally onized System of Classification and Labeling of Chemicals (GHS). Although the headings for ms 12-15 are mandatory, OSHA will not enforce the content of these four sections because these ms are within other agencies' jurisdictions.
		All new procurements of hazardous chemicals should be evaluated and, whenever possible, the least hazardous substance will be purchased.
		Training of all employees regarding any new or updated SDS will be documented.
		Purchase orders for hazardous chemicals should include a request for a current SDS.
		Hazardous chemicals should not be incorporated into any work process until an SDS has been received and reviewed by employees exposed to the chemical.
	Acces	sibility of Safety Data Sheets.
		A current SDS library will be maintained in (department name) for all hazardous chemicals identified and listed on the HCL.
		The SDSs will be readily available to all employees during each work shift.

If a new SDS contains changes or new information, the old SDS will be replaced with the new

one in both the master file and the worksite file. Affected personnel will review updated or modified SDSs.

Labels and Other Forms of Warning

- 1. Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within **six months** of becoming aware of the new information, and shall ensure that labels on containers of hazardous chemicals shipped after that time contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importer, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.
- 2. Containers of hazardous chemicals will be properly labelled with at the following information:
 - a. Chemical manufacturers and importers will be required to provide a label that includes a
 harmonized signal word, pictogram, and hazard statement for each hazard class and category.
 Precautionary statements must also be provided.
 - b. Identify of the hazardous chemical;
 - c. Appropriate hazards and warnings (including target organ effect); and
 - d. Name and address of the manufacturer.
 - e. **Pictogram:** a symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a **red square frame** set on a point (i.e. a red diamond). There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS.

HCS Pictograms and Hazards

Health Hazard	Flame	Exclamation Mark
 Carcinogen Mutagenicity Reproductive Toxicity Respiratory Sensitizer Target Organ Toxicity Aspiration Toxicity 	 Flammables Pyrophorics Self-Heating Emits Flammable Gas Self-Reactives Organic Peroxides 	Irritant (skin and eye) Skin Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer (Non Mandatory)
Gas Cylinder	Corrosion	Exploding Bomb
Gases under Pressure	• Skin Corrosion/ burns • Eye Damage • Corrosive to Metals	• Explosives • Self-Reactives • Organic Peroxides

Flame over Circle	Environment (Non Mandatory)	Skull and Crossbones
• Oxidizers	 Aquatic Toxicity 	Acute Toxicity (fatal or toxic)

- f. **Signal words:** a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards.
- g. **Hazard Statement:** a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
- h. **Precautionary Statement:** a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling of a hazardous chemical.
- 3. The appropriate SDS will be reviewed by ______ (name or job title) to verify the warning label.
- 4. Unlabelled containers should not be used.
- 5. Secondary containers used by several employees will be labelled.
 - a. A semi-permanent label with the following information will be used:
 - i. Identity of the hazardous chemical;
 - ii. Appropriate hazards and warnings (including target organ effect); and
 - iii. Name and address of the chemical manufacturer.
 - b. Use the secondary container only for the chemical identified on the label.
 - c. The secondary container will be emptied and washed as needed. The label will not be removed, but will remain in place for future uses.
- 6. Alternate methods of labelling (signs, placards, batch tickets, process sheets and like written materials) may be used on individual stationary containers in lieu of affixed labels, provided the alternative method identifies the containers to which it applies and conveys the required information and is readily accessible to employees in their work area throughout the shift.
- 7. All primary and secondary containers will be regularly checked and verified that labels have not been defaced or removed and the information contained on them is current.

Training and Communication

1. OSHA is requiring that employees are trained on the new label elements (i.e., pictograms, hazard statements, precautionary statements, and signal words) and SDS format by December 1, 2013, while full compliance with the final rule will begin in 2015. OSHA believes that American workplaces will soon begin to receive labels and SDSs that are consistent with the GHS, since many American and

foreign chemical manufacturers have already begun to produce HazCom 2012/GHS-compliant labels and SDSs. It is important to ensure that when employees begin to see the new labels and SDSs in their workplaces, they will be familiar with them, understand how to use them, and access the information effectively.

For more information, http://www.osha.gov/dsg/hazcom/effectivedates.html.

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

Non-Routine Tasks

Maintenance or other supervisor contemplating undertaking a non-routine task, e.g., instrument repair and cleaning, will ensure that employees are informed of chemical hazards associated with the performance of these tasks and that appropriate protective measures are taken prior to the beginning of the task.

Definitions

Article: means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

Assistant Secretary: means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

Chemical means any substance, or mixture of substances.

Chemical manufacturer means an employer with a workplace where chemical(s) are produced for use or distribution.

Chemical name means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name <u>that</u> will clearly identify the chemical for the purpose of conducting a hazard <u>classification</u>.

Classification means to identify the relevant data regarding the hazards of a chemical; review those data to ascertain the hazards associated with the chemical; and decide whether the chemical will be classified as hazardous according to the definition of hazardous chemical in this section. In addition, classification for health and physical hazards includes the determination of the degree of hazard, where appropriate, by comparing the data with the criteria for health and physical hazards.

Commercial account means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

Common name means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

Container means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

Designated representative means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

Director means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

Distributor means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

Employee means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

Employer means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

Exposure or exposed means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure. "Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

Foreseeable emergency means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

Hazard category means the division of criteria within each hazard class, e.g., oral acute toxicity and flammable liquids include four hazard categories. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard categories more generally.

Hazard class means the nature of the physical or health hazards, e.g., flammable solid, carcinogen, oral acute toxicity.

Hazard not otherwise classified (HNOC) means an adverse physical or health effect identified through evaluation of scientific evidence during the classification process that does not meet the specified criteria for the physical and health hazard classes addressed in this section. This does not extend coverage to adverse physical and health effects for which there is a hazard class addressed in this section, but the effect either falls below the cut-off value/concentration limit of the hazard class or is under a GHS hazard category that has not been adopted by OSHA (e.g., acute toxicity Category 5).

Hazard statement means a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.

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

Health hazard means a chemical which is classified as posing one of the following hazardous effects: acute toxicity (any route of exposure); skin corrosion or irritation; serious eye damage or eye irritation; respiratory or skin sensitization; germ cell mutagenicity; carcinogenicity; reproductive toxicity; specific target organ toxicity (single or repeated exposure); or aspiration hazard. The criteria for determining whether a chemical is classified as a health hazard are detailed in Appendix A to §1910.1200 -- Health Hazard Criteria.

Immediate use means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

Importer means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

Label means an appropriate group of written, printed or graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

Label elements means the specified pictogram, hazard statement, signal word and precautionary statement for each hazard class and category.

Mixture means a combination or a solution composed of two or more substances in which they do not react.

Physical hazard means a chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; Pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; or in contact with water emits flammable gas. See Appendix B to §1910.1200 -- Physical Hazard Criteria.

Pictogram means a composition that may include a symbol plus other graphic elements, such as a border, background pattern, or color, that is intended to convey specific information about the hazards of a chemical. Eight pictograms are designated under this standard for application to a hazard category.

Precautionary statement means a phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical, or improper storage or handling.

Product identifier means the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique means by which the user can identify the chemical. The product identifier used shall permit cross-references to be made among the list of hazardous chemicals required in the written hazard communication program, the label and the SDS.

Produce means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

Pyrophoric gas means a chemical in a gaseous state that will ignite spontaneously in air at a temperature of 130 degrees F (54.4 degrees C) or below.

Responsible party means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

Safety data sheet (SDS) means written or printed material concerning a hazardous chemical that is prepared in accordance with paragraph (g) of this section.

Signal word means a word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used in this section are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

Simple asphyxiant means a substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death.

Specific chemical identity means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

Substance means chemical elements and their compounds in the natural state or obtained by any production process, including any additive necessary to preserve the stability of the product and any impurities deriving from the process used, but excluding any solvent which may be separated without affecting the stability of the substance or changing its composition.

Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. <u>Appendix E to §1910.1200–Definition of Trade Secret</u>, sets out the criteria to be used in evaluating trade secrets.

Use means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

Work area means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

Workplace means an establishment, job site, or project, at one geographical location containing one or more work areas.