ACCIDENT

PREVENTION

PROGRAM

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SAFETY AND HEALTH POLICY

Everett Public Schools' policy is to promote and provide safe, healthful working conditions and practices for all district employees. Safety and health are among our principal responsibilities.

To fulfill the conditions of this policy, the district will provide safety information, safety orientations, and appropriate safety training to protect employee welfare. We aim to resolve safety and health problems through prevention.

The administration is wholly responsible for developing an effective safety and health program.

The district has adopted rules and regulations governing the safe performance of assigned work and the use of district equipment. By accepting the mutual responsibility of safe operating practices, we all contribute to the well-being of our personnel and subsequently, the district's best interest.

PROGRAM OVERVIEW

Everett Public Schools is committed to providing a safe and healthful environment for all students and employees. This Accident Prevention Program was developed to implement the district's safety and health policy fully. The program elements cover a broad spectrum of areas and are designed to prevent accidents and injuries. Taken individually, the program elements have minimal effect. As an integrated program and with the support of employees at all levels, the Accident Prevention Program can reduce the number and severity of job-related injuries to district employees.

The Accident Prevention Program aims to improve all school district employees' skills, awareness, and competency in occupational safety and health. To accomplish this purpose, the district will:

- Assist employees in identifying unsafe conditions or practices to protect themselves and others from undue hazards.
- Provide new employees with safety orientation training.
- Provide ongoing training to improve safety skills and knowledge.
- Involve district employees in keeping the workplace safe.
- Plan for emergencies.

Employees are encouraged to share ideas or suggestions to enhance the district's accident prevention program with their supervisors, school district administration, and the district's employee safety committee.

RESPONSIBILITIES

A. Administration

Each administrator is responsible for implementing safety and health procedures within their area of responsibility. Other responsibilities include:

1. Delegating authority to supervisors and holding them accountable for accident prevention and reporting procedures as specified herein.
2. Ensuring that safety orientation training and ongoing safety training are accomplished within their departments.
3. Ensuring an ongoing vehicle safety program is implemented within their departments.
4. Ensuring compliance with WAC 296-800-320 to report fatalities or multiple hospitalization accidents promptly.
5. Providing personal protective equipment required to accomplish tasks safely.

B. Supervisors

The safety and health of the employees they supervise is a serious responsibility of each supervisor. To meet this obligation, supervisors shall:

1. Ensure that all safety and health rules, standards, and procedures are observed.
2. Orient and train employees in safe and efficient work methods and see that they are practiced.
3. Follow up and act upon suggestions made by employees and the safety committee.
4. Conduct monthly inspections of work areas and practices to eliminate potentially hazardous conditions. Submit corrective action reports to the safety committee.
5. Investigate all accidents, regardless of severity. Supervisors shall complete the Department of Labor & Industries "Supervisor's Report of Investigation," which will be emailed to them by the Human Resources Department. Once complete, supervisors will submit the report electronically and make preventive suggestions when appropriate. After the supervisor learns of the accident, these reports shall be completed and submitted within 24 hours or the next working day.
6. Ensure that personal protective equipment is worn when the task dictates.
7. Conduct a Job Safety Analysis when needed.

C. All Employees

Employees are required to:

1. Attend the initial safety orientation/job-specific safety training.
2. Know and comply with all safety rules and procedures.
3. Cooperate with co-workers, supervisors, and the safety committee to assist in eliminating accidents.
4. Identify and report potential hazards.
5. Report all accidents to immediate supervisors regardless of severity or type. (Note: Failure to report an industrial injury, occupational illness, vehicle

accident, or equipment damage, as prescribed, may be grounds for disciplinary action.)

6. For each occurrence of an on-the-job accident, contact the Nurse Triage line at 833.928.6877 or file the claim online at https://www.everettsd.org/Page/14939 within 24 hours or the next working day.
7. Serve on safety committees when elected or selected.
8. Maintain all personal protective equipment in a safe and usable condition and wear it when tasks dictate.
9. Participate in provided safety training.
10. Safely perform all assigned tasks to avoid endangering themselves or their co-workers.

SAFETY & HEALTH COMMITTEE

The Safety Committee will comprise employer-selected and employee-elected members (WAC 296-800-13020).

1. The term of employee-elected members is a maximum of one year. Should a vacancy occur on the committee, a new member will be elected before the next meeting.
2. The number of employer-selected members will not exceed the number of employee-elected members.

The safety committee will have an elected chairperson.

The safety committee is responsible for determining the frequency of committee meetings (minimum quarterly.)

1. The committee is responsible for determining the meeting's date, hour, and location.
2. The length of each meeting will not exceed one hour except by majority vote of the committee.

Minutes of each committee meeting will be prepared and filed for at least one year. They shall be made available for review by noncompliance personnel of Washington State Department of Labor and Industries (L&I) Division of Industrial Safety and Health .

Safety and health committee meetings will address the following:

1. Review the safety and health inspection reports to assist in correcting identified unsafe conditions or practices.
2. Evaluate the accident investigations conducted since the last meeting to determine if the cause of the unsafe acts or unsafe conditions was properly identified and corrected. Review and investigate any hazard reports received either orally or in writing.
3. Periodically evaluate the accident and illness prevention program as implemented and recommend improvements.
4. Evaluate employee safety suggestions.
5. Meeting attendance shall be documented.
6. All items discussed will be documented.

Meeting minutes will be distributed to each location for posting on the Safety Bulletin Board.

SAFETY BULLETIN BOARD

Purpose: The bulletin board increases employee awareness of safety and health issues and communicates management's safety message.

Procedure: To have an effective bulletin board, the following issues should be considered:

a. A specific safety bulletin board or a portion of an existing board should be designated, and that spot should be reserved EXCLUSIVELY for safety material.
b. Postings should be attractively arranged.
c. Posters, safety committee minutes, and other information that becomes dated or worn should be changed periodically.
d. Placed in a location where there is greatest employee exposure (lunchroom, break room, near time clock, etc.)
e. Each site is responsible for maintaining each bulletin board, as recommended above.

The following publications will be posted:

1. Job Safety and Health Law (F416-081-909)
2. Notice to Employees Self-Insured (F207-037-909)
3. Your Rights as a Worker (F700-074-909)
4. Citation and Notice (as appropriate)
5. A list of all valid first aid cardholders and location(s) of first aid kit(s)
6. Most current safety committee meeting minutes
7. Hazard reporting form

SAFETY ORIENTATION

Purpose: Orientation of new employees, re-hires, part-time employees, substitutes, temporary employees, and those transferred from another department within the district will occur on the first day of employment on the new job. This program will introduce district policies and rules and review the district's written safety and claims management procedures. The orientation should include a tour of the facilities to acquaint employees with the entire operation. The employee will also be advised of their job performance acceptability level.

Procedure: The employee's immediate supervisor will provide job-specific safety training, covering all aspects of the safety program related to each employee and their assigned duties. This training will be annotated on a "Safety Orientation" checklist. Both employee and supervisor will sign, indicating that the orientation was conducted. The signed document will be sent to Human Resources for file placement. Supervisors will retain a copy for their desk files.

ACCIDENT INVESTIGATION AND REPORTING

Purpose: Since every accident includes a sequence of contributing causes, it is possible to prevent a recurrence by recognizing and eliminating those causes. The removal of a single cause can prevent a recurrence of an accident/incident. During the supervisor's investigation, they must determine the possible consequences that could take place if the situation is not corrected and take appropriate action based on those findings (i.e., investigate, report, correct, etc.)

Medical Emergency Procedure:

An aid car will be called if the employee needs immediate medical attention. The telephone number is 9-911. A district official will accompany the employee to the doctor or hospital.

Documentation Procedures:

1. **All accidents/incidents involving minor injuries and "near-misses"** are to be reported to the immediate supervisor as soon as possible after the accident. In all cases of an on-the-job injury, employees must report the incident to the district's claims administrator as outlined on the district web page. Supervisors should contact Human Resources for guidance in cases of minor injuries with a safety hazard as the contributing cause.

2. **Minor Injuries** - (Requiring doctor/outpatient care)
   After emergency actions are taken following an accident, the immediate supervisor will conduct an investigation of the accident, in conjunction with any witnesses to the accident, to determine the cause. The investigation findings shall be documented on the "Supervisor's Report of Investigation" once received from the Department of Labor and Industries.

3. **Major Injuries** - (Fatality or multiple hospitalizations)
   a. The person in charge must immediately notify the district safety and security coordinator and supervisor, and the district will conduct an investigation. In addition to the district investigator, the inspection party will include the claims manager, the injured person's/persons' supervisor, a safety committee representative (supervisor-staff), and an employee representative.

b. In the case of a fatality, or if one or more employees are hospitalized, the supervisor will report the accident to the nearest office of the Department of Labor and Industries, phone number 1-800-423-7233, within eight hours of the occurrence of the accident. The report shall relate the circumstances, the number of fatalities, and the extent of any injuries. Note: Any equipment involved in an accident resulting in an immediate fatality will not be moved until a Department of Labor and Industries representative investigates the accident and authorizes its removal. However, if it is necessary to move the equipment to prevent additional accidents or remove the victim, the equipment may be moved as required.

4. **"Near Misses"** - (likelihood of personal injury or property damage) To the greatest extent possible, all "near-miss" accidents shall be investigated by the administrator/supervisor. Supervisors should contact their Human Resources representative for further guidance. The "Supervisor's Report of Investigation" shall be used if documented. A "near-miss" accident is defined as an unplanned event where damage resulted but there was no personal injury to employees, or where damage did not result however the likelihood of personal injury to the employee was great. If the conditions that permitted the "near-miss" or "close-call" to exist are not eliminated, they will continue to be an issue, which may result in future accidents and personal injury to employees.

SAFETY AND HEALTH EDUCATION TRAINING

Purpose: All employees will receive ongoing safety and health education programs to increase awareness of accident causal factors. This will also improve morale by demonstrating management's concern for the individual employee and promoting acceptance of safety and health regulations by presenting accident prevention as a positive, desirable, and integral part of all activities.

Procedure: The school district will provide employees with a systematic accident prevention training program. This program will provide on-the-job training in work areas and familiarize each employee with the district's safety and health requirements.

General Safety and Health Training:

Back Injury Prevention
Slip and Fall Prevention
Fall Protection and Ladder Safety
Eye Safety/Hand Safety
Hearing Conservation
Sprain/Strain Prevention
Confined Space
Bloodborne Pathogens
Repetitive Trauma/Ergonomics
Personal Protective Equipment
Respiratory Protection
Machinery
Hazardous Chemical Safety
Lockout/Tagout

Specific Safety and Health Training:

AHERA required Designated Person course (8 hours)
AHERA Custodial and Maintenance Worker course (2 hours)
L & I Asbestos Worker certification course (30 hours)
OSHA/WISHA Forklift Operator course
DOE Hazardous Material Handler course
WISHA Hazard Communication Standard and SDS training
EPA Pesticide Applicator course
Chemical Hygiene Officers' training

OCCUPATIONAL INJURY AND ILLNESS RECORDKEEPING

Purpose: Occupational Injury and Illness Logs are maintained and posted in accordance with federal and state standards. They are posted annually to inform employees of the number and type of illnesses and injuries suffered at each place of employment.

Procedure: Educational entities have been granted a partial exemption from the requirement to maintain occupational injury and illness records. The district, however, may be selected to participate in a survey for statistical purposes. In that case, the U.S. Department of Labor will notify the district of its selection during the year before the survey to record data.

HAZARD REPORTING

Purpose: To provide each employee the opportunity to report, without fear of reprisal, any unsafe act, conditions, or procedures that they may observe.

Procedure: Employees will report hazards to their immediate supervisor or the Safety Committee. Hazards may be submitted in writing or orally and may be submitted anonymously. The supervisor or safety committee will review, validate, and take corrective actions on valid hazards. The originator will be notified of any action planned or implemented to abate the hazard. Action on hazard reports will be covered in the safety committee meeting minutes.

HAZARD COMMUNICATIONS

Purpose: The District Hazard Communication Program was developed to ensure that employees are informed of the chemical hazards associated with products used in their work areas.

Procedure: All employees will be provided training on the District Hazard Communication Program. During the initial orientation/job safety training conducted by their supervisor, employees will be informed of any potential hazards related to the products they will use to perform their jobs. The Safety Data Sheets (SDSs) will be used to show potential health hazards, first aid treatment, required personal protective equipment, and actions to take in the event of a spill. Whenever a new product is introduced into the work area, the above training items will be covered with all affected personnel. Copies of SDSs for all products used in a work location will be maintained in that location.

Hazard Communication Program (HAZCOM) Description

The district is committed to preventing exposures resulting in injury and illness and complying with all applicable state health and safety rules. The following hazardous chemical communication program has been established to ensure that employees know about the dangers of all hazardous chemicals used by the district.

List of Hazardous Chemicals

A list of all hazardous chemicals is kept in the front of the SDS binder at each site. The list must contain enough information to match each chemical to its SDS. The list is updated yearly, and old lists are kept on file at the district office. Archived lists for each site will be filed by year or otherwise indicate each chemical's use dates. Archived lists will be kept for a minimum of 30 years.

Safety Data Sheets (SDS)

An SDS will be obtained for every hazardous chemical at the time the chemical is obtained. No chemical will be stored or used without an SDS.

Copies of SDSs for all hazardous chemicals in use will be kept in the site SDS manual and at the district office. If any vehicle regularly carries a hazardous chemical (for maintenance, cleaning, etc.), an SDS will be maintained in the vehicle for the hazardous chemical carried. SDS will be available to all employees during each work shift.

The district office will keep a copy of all SDSs for at least thirty years. These records are part of the exposure records. The records, which include the chemical list by year, must detail the chemical, where it was used, and when it was used.

Container Labeling

Labels for containers of hazardous chemicals must be easy to read and put in place on every container. Labels must have:

1. the name of the chemical or common name (adequate information for finding the SDS); and
2. general information about the health and physical hazards of the chemical.

When possible, original-label containers will be used. If the original label becomes difficult to read, it will be promptly replaced.

Whenever a quantity of material is transferred into a non-labeled container for use, it shall only be in a quantity that will be used during the shift by the person making the transfer. If the chemical is kept in the container past the end of the shift, it must be labeled.
If quantities of materials are to be used in containers other than the original labeled container, they must be clearly labeled.

No containers will be kept without a label accurately describing the contents.

Employee Information and Training

The supervisor will make sure that before starting work, each new employee attends a health and safety orientation that includes information and training on the following, including specific information about specific chemicals the employee may be exposed to on site:

- An overview of the requirements contained in the Hazard Communication Standard;
- Hazardous chemicals present at their workplaces;
- Physical and health risks of the hazardous chemical and the symptoms of overexposure;
- How to determine the presence or release of hazardous chemicals in their work area;
- How to reduce or prevent exposure to hazardous chemicals through the use of control procedures, work practices, and personal protective equipment;
- Steps the employer has taken to reduce or prevent exposure to hazardous chemicals;
- Procedures to follow if employees are overexposed to hazardous chemicals;
- How to read labels and review SDSs to obtain hazard information; and
- The location of the SDS binder and written hazard communication program.

The supervisor will ensure that all employees receive information or refresher training whenever the chemicals used changes.

Staff Responsibilities

1. Building Administrators and Supervisors

a. Maintain a list of hazardous chemicals used or stored in their work area.
b. Submit new safety data sheets (SDSs) to the SDS manager for database inclusion.
c. Obtain/maintain copies of SDSs, as required, for each hazardous chemical used or stored in work areas and make them accessible to employees during each work shift.
d. Review the SDS received to ensure it is current and complete. If an SDS appears outdated or incomplete, send a letter to the manufacturer requesting a current and complete SDS.
e. Make this written Hazard Communication Program available, upon request, to all employees.

2. Supervisors

a. Ensure hazardous chemicals are properly labeled.

b. Ensure that all new chemicals introduced or used in work areas under their responsibility have an SDS readily accessible and inform employees of these locations.
c. Ensure that employees under their supervision who work with hazardous chemicals and whose work area contains hazardous chemicals receive general hazard communication training when hired and receive work area-specific training before their initial assignment of working with and being exposed to hazardous chemical(s) in the work area. This includes any new chemical hazards introduced in the work area after initial training, those associated with non-routine tasks, and those introduced by non-district personnel (subcontractors, vendors, etc.).
d. Ensure that employees are trained in using any recommended PPE and use it as instructed.

3. SDS manager

a. Maintains a districtwide file of safety data sheets (i.e., the master file) for all hazardous chemicals on each site (see also Subcontractors).
b. Maintains a list of all hazardous chemicals (i.e., the master list) used and stored on-site in a central computer file (see also Subcontractors).
c. Provides a summary of this Hazard Communication Program to subcontractors working onsite. This may be accomplished by attachment to the contract or at pre-construction meetings.
d. Archives the chemical lists and SDSs from prior years so that the district has records that include the chemical list by year and details the chemical, where it was used, and when it was used.

4. Human Resources

a. Develops and presents general hazard communication training material.
b. Provides all new employees with general hazard communication training.

5. SDS Manager, Building Administrators and Supervisors

a. Ensures containers of chemicals received, distributed, or transferred to other containers have the appropriate hazard communication labeling.
b. Forwards SDSs received with shipments to SDS manager for further distribution.

6. Subcontractors

a. Because the district uses and stores hazardous chemicals on-site such that the employees of another employer(s) may be exposed (for example, employees of a construction subcontractor working on-site), the program manager shall enclose a summary of this Hazard Communication Program in subcontracts involving work on site. Alternatively, this summary may be provided to subcontractors in pre-construction meetings.
b. Contractors performing work on-site shall include a copy of their hazard communication program in their site safety and health plan if they intend to bring any hazardous chemicals to the premises. The subcontractor shall maintain

SDSs for these hazardous chemicals and make them available to district staff upon request.

7. Science Teachers

a. Science teachers shall follow the procedures in this policy as they apply to an inventory and SDS for chemicals in their classrooms. In addition, they shall be provided general Hazard Communication and operation-specific training if they use hazardous chemicals and/or are exposed to hazardous chemicals as a part of their job. Their Building Administrator shall coordinate training.
b. lf applicable, science teachers will comply with the Laboratory Chemical Hygiene Plan.

8. All Employees

a. All employees shall attend district Hazard Communication training and become familiar with the program, the location of the chemical list, and safety data sheets. Employees will become familiar with the hazards of chemicals they work with and will not use new chemicals until they have reviewed the SDS and the hazards with their supervisor.

Hazard Communication Standard Pictogram

As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The chemical hazard classification determines the pictogram on the label.

HCS Pictograms and Hazards

Health Hazard

- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

Flame

- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

Exclamation Mark

- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

Gas Cylinder

- Gases Under Pressure

Corrosion

- Skin Corrosion/Burns
- Eye Damage
- Corrosive to Metals

Exploding Bomb

- Explosives
- Self-Reactives
- Organic Peroxides

Flame Over Circle

- Oxidizers

Environment (Non-Mandatory)

- Aquatic Toxicity

Skull and Crossbones

- Acute toxicity (fatal or toxic)

EMERGENCY ACTIONS

Purpose: To inform employees of the proper actions to be taken during various emergencies.

Procedure: All employees will receive emergency action training during their supervisor's initial orientation/job safety training. The emergency action plans developed for each location will serve as the training guide.

Emergency Plan programs (Safety Plans) are located with the site principal, designee, or coordinator of office operations at each site.

HAZARDOUS ENERGY CONTROL PROGRAM (lockout/tagout)

Purpose: This program establishes the requirements for the lockout or tagout of energy sources. It ensures that machines or equipment are isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury.

Procedure: All employees will be instructed on the significance of the lockout or tagout procedures during their initial orientation/safety training conducted by their supervisor. Each new or transferred employee and other employees whose work operations are or may be in the area shall be instructed on the lockout or tagout procedures.

Lockout/Tagout Program

Purpose

This Program establishes the requirements for lockout or tagout energy isolating devices. It shall ensure that machines or equipment are isolated from all potentially hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury.

Responsibility

All employees shall be instructed in the safety significance of the lockout or tagout procedure. Each new or transferred employee and other employees whose work operations are or may be in the area shall be instructed on the purpose and use of the lockout or tagout procedures.

Preparation for Lockout or Tagout

Conduct a survey to locate and identify all isolating devices to ensure that all switches, valves, or other energy-isolating devices that apply to the equipment are locked or tagged out. More than one energy source (electrical, mechanical, or other) may be involved.

The Sequence of Lockout or Tagout Procedure

- Notify all affected employees that a lockout or tagout system will be utilized and why. The authorized employee(s) shall know the type and magnitude of energy the machine or equipment utilizes and shall understand the hazards thereof. If the machine or equipment is operating, stop it using the standard procedure.
- Close or shut down all switches, valves, and other energy-isolating devices to isolate the equipment from its energy source(s.) Stored energy (springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure) must be dissipated or restrained by a method such as repositioning, blocking, bleeding down, etc.
- Lockout and/or tagout the energy-isolating device(s) with assigned individual locks and tags.
- To ensure that all energy sources have been deactivated, ensure that employees are not exposed, and then operate the push button or other normal operating controls to ensure the equipment will not operate. **CAUTION: Return operating controls to neutral or off position after the test.**
- The equipment is now isolated from energy sources.

Restoring Machines or Equipment to Normal Production

- After the servicing and/or maintenance are complete and the equipment is ready for normal production operations, check the area around the machine to ensure no one is exposed.
- After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lockout/tagout devices to restore energy to the machine or equipment.

Procedure Involving More Than One Person

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

Lost Key Procedure

If a key to a lockout device is lost or misplaced, report it immediately to your supervisor. Each device will have only one key and a master key, which the appropriate supervisor shall regulate and retain. Employees providing lockout service shall keep their keys on them at all times.

Removal of Lockout Tagout Equipment by Others
If a person who initially locked out the equipment neglects to remove their padlock before leaving the work site, the following procedure must be adhered to:

- The supervisor or management must complete an inspection of the work area to ensure that the person(s) who performed the initial lockout/tagout procedures is/are safe and uninjured.
- If necessary, contact the employee's residence to verify their safety and location and determine if they did or did not complete the assigned task and if they inadvertently neglected to remove the lockout signs and padlock.
- These two steps must be completed before the supervisor in charge of the master key may remove the lockout sign and padlock(s).
- A record of this occurrence shall be kept, and the lockout/tagout procedures reviewed by the employee. Progressive disciplinary action should be taken if appropriate.

Basic Rules for Using Lockout or Tagout System

All equipment shall be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. DO NOT ATTEMPT to operate any switch, valve, or other energy-isolating device when it is locked or tagged out.

Personnel Authorized to Lockout Tagout

All Facilities Maintenance personnel with Lockout/Tagout training are authorized.

Training
- All employees involved shall be trained to implement this program and its elements correctly.
- A "certification" will be prepared with the names and dates of training.

Periodic Review

At least annually, these procedures will be reviewed and verified.

PERSONAL PROTECTIVE EQUIPMENT PROGRAM

Purpose: To provide employees with protective equipment while performing tasks with potential for injury.

Procedure: During the initial orientation and safety training, all employees whose position requires the use of personal protective equipment (PPE) will be provided instruction by their supervisor. The instruction will include the issuance of and the requirement for using, caring for, and maintaining personal protective equipment. A survey of the work area will be conducted to assess the need for PPE, and a record of the assessment will be kept on file.

Personal Protective Equipment (PPE) Program

Supervisors are required to assess the hazards of each job and determine what PPE is necessary on the job. They must document the hazard assessment for PPE and complete a written certification that includes the name of the site, address, person certifying, and date. This must be done when the job starts and whenever there are any changes in conditions, tools, or processes using the Hazard Assessment Certification form. A copy of the certification will be furnished to the employee.

- Employees are required to wear PPE as instructed by their supervisor to perform their work safely.
- All required PPE will be furnished to employees at no cost.
- Employees must maintain PPE in clean working condition according to the manufacturer's instructions, test PPE before each use, and request new PPE as needed.
- The supervisor must ensure that appropriate PPE is available to employees, that they are trained in its use and care, and that PPE requirements are enforced.

Hand Protection - (Glove Policy)

Gloves are the most common form of PPE.

All employees are furnished with one-use disposable nitrile or vinyl gloves in case they are required to provide first aid or clean up after an injury.

Custodial, maintenance, and yard crews are furnished with gloves to protect them from materials they handle and for protection against chemicals and cleaning compounds that may injure employees' skin.

Kitchen workers are furnished with appropriate gloves to protect against cuts when using knives and heat from cooking.
Maintenance staff working on or near energized electrical sources (e.g., testing, troubleshooting) will be furnished with rated electrical gloves and protectors. Employees are to follow the Electrical Safety Program.

Eye & Face Protection

Prior to working in any area with potential exposure to hazardous materials or chemicals, the nearest eyewash shall be identified and communicated to all.

Safety glasses (ANSI Z87.1 approved) will always be worn while performing tasks where particles could hit the eyes. Special eye-hazard work areas (such as welding, torch work, lasers, etc.) shall be identified, and appropriate eye protection will be provided. ANSI-approved eyewear shall be worn over prescription glasses for access to project work areas until permanent protective eyewear can be obtained.

Goggles shall be worn if there is a potential for fine particles or chemical hazards. Visitors invited to our shop areas where eye protection is required shall be provided with approved goggles or glasses.

Face shields shall be worn when grinding and handling acids, other hazardous chemicals, or hot liquids/grease that could splash.

Face shields will be worn when cleaning spills of blood or potentially infectious materials when there is a splash hazard.

Head / Scalp

Hard hats are to be worn in all construction areas unless otherwise communicated or posted. Hard hats shall meet ANSI Z.89.1- 1986 and shall be Class A or B.

- Metallic hard hats are prohibited.
- Bump caps are prohibited as head protection.
- Hard hats should be inspected before each use for cracks, signs of impact, or rough treatment and wear that might reduce the degree of safety originally provided. If signs of excess wear exist, they should be discarded.
- Hard-hat suspensions shall never be altered. Hard hats are to be worn with the bill to the front or as provided by the manufacturer; hard hats shall not be worn backward or otherwise on the head unless the hard hat is manufactured to be effective that way.

Body Protection

Where chemical hazards (corrosives, etc.) are present, all personnel shall receive appropriate protection. The protection provided shall be resistant to the hazards and chemical properties presented by the work.

Legs, Thighs, Knees, Shins, & Ankles

Custodial and maintenance employees shall wear full-length pants and shirts with sleeves at least 4" long. Overalls or pants must not have loose, torn, or dragging fabric.

Pointed tools shall not be carried in pockets. A canvas or leather tool sheath hung from the belt is acceptable - Remember: All Points Down.

Feet & Toes

Tennis shoes or other similar types will not be accepted as adequate footwear at any time. Tennis shoes, running shoes, light canvas shoes, etc., are not authorized to wear in custodial, maintenance, or construction areas.

Hearing Protection

Any area or operation that exposes employees to noise more than 85 dBA shall be posted as "High Noise Area" or "Hearing Protection Required".

In areas posted "Hearing Protection Required" or "High Noise Area", hearing protection (e.g., ear muffs or ear plugs) shall be provided and worn at all times.

The general rule of thumb is that if background noise is loud enough to require speaking with a raised voice above background noise at 3 feet, the noise level is probably above 85 dBA. The noise level is probably 90 dBA or greater if a shout is required.

Employees operating equipment are required to wear foam ear plugs or ear muffs, as provided by the district, when exposed to noise levels equal to or over 90 dBA, as determined by instrumental monitoring or the general rule listed above, or when recommended by the equipment manufacturer.

Respirators

If a project plan or exposure monitoring determines that the use of a respirator is required to adequately safeguard employees, all employees shall be trained, medically evaluated, fitted, and supplied with the appropriate respirator for the job. An employee will not be allowed to purchase or furnish their own respirator.

Respirators shall not be shared. Each employee requiring protection shall be issued equipment.

Anyone wearing a respirator shall be clean-shaven to ensure a secure face/respirator seal.

All personnel required to use a respirator shall be trained, and training records will be available upon request.

HAZMAT Exposures

Qualified employees with current training and certification will assist in choosing PPE whenever entry or work in a hazardous site is required. They will select the PPE

following the manufacturer's recommendations, as stated in the SDS, for the chemical exposure identified or called for by their training. This may include but is not limited to, protective eyewear, clothing, gloves, or respirators. (Respirator use requires proper training, fitting, and medical monitoring.)

No entry into areas with HAZMAT exposures will be undertaken without appropriate risk assessment and testing. Procedures for decontamination, cleaning, or disposal will be considered.

FIRST AID PROGRAM

Purpose**:** To ensure that each district employee is afforded quick and effective first-aid treatment in the event of an on-the-job injury.

Procedure: First Aid Training

A sufficient number of employees will be trained to ensure that a first aid-certified individual is present at or near any location where employees are working. Other school employees required to have first aid training include:

- All PE and health teachers must have a first aid card, per OSPI.
- All lab science teachers must have a first aid card per WISHA/DOSH.
- All school bus drivers must have a first aid card, per OSPI.
- All daycare workers must have a first aid card, according to the Dept of Health.
- All coaches must have a valid first aid card, per WIAA.

It is the employee's responsibility to attend first aid certification training if selected by the supervisor.

First Aid Kits

First aid kits will be maintained at each facility. Their locations will be posted on the Safety Bulletin Board and shown to each employee during the safety orientation. If first aid kits are not clearly visible, a sign shall be posted indicating their location. All kits shall be readily accessible.

Except in those instances where another person is designated, the building principal or building supervisor is assigned to ensure that the first aid kits are properly maintained and stocked.

Emergency phone numbers and procedures will be strategically located, such as on the first aid kit, on telephones, on the safety bulletin board, and in other appropriate areas.

First Aid Kit Guidance (WAC 296-800-150)

Sample First Aid Kit Contents:

a. One absorbent compress, 4x8 inches
b. Sixteen adhesive bandages, 1x3 inches
c. One adhesive tape, 5 yards long; ten antiseptic single-use packages, 0.5g application
d. Six burn treatment single-use packages, 0.5g application
e. One eye covering (for two eyes)
f. One eye wash, one fluid ounce
g. Four sterile pads, 3x3 inches
h. Two pairs of medical exam gloves; one triangular bandage, 39x39x55 inches

i. Disposable rubber (vinyl) gloves
j. CPR Micro-shield (sterile, disposable)

Optional First Aid Kit Contents

a. Bandage compresses, 2x2 inches, 3x3 inches, and 5x5 inches
b. Self-activating cold packs, 4x5 inches
c. Roller bandages, 6 yards long, mouth-to-mouth barrier for CPR

Note: ASTM (American Society for Testing and Materials), ANSI (American National Standards Institute), or other consensus national standard kits will meet these requirements.

Employers should consider the type of hazards at each work site (physical, chemical, biological, number of employees, and local emergency response providers) to determine the quantities of first aid supplies.

A CPR Micro-shield (sterile, disposable) and a supply of disposable rubber (vinyl) gloves are additional items that should be included in every first aid kit. Disposable gloves should be readily available to every school employee at all times to provide basic barrier protection from bodily fluids, e.g., blood, urine, vomit, mucus, vaginal discharge, etc.

Gloves should be provided to playground supervisors, crossing guards, bus drivers, coaches, club advisors, and others who may need to assist a student at a location away from a first aid kit. First aid should not be administered without protection provided by gloves. Other barrier protection devices, such as aprons and eye splash protection, should be available whenever circumstances dictate their use (e.g., daycare workers, bus drivers, instructors, and aides of students with disabilities).

School administrators should remember that these requirements apply to employees only.

HEARING CONSERVATION PROGRAM

Purpose: Protect all employees from hazardous noise levels and the potential for permanent hearing loss. This program will apply to those employees who, due to their assignments, are exposed to dangerous noise levels as defined by OSHA and the Washington State Department of Industrial Safety and Health.

Procedure: An initial survey of all district facilities/occupations will be conducted to identify any area or occupation that may exceed either the time-weighted average (TWA) of 85 dBA, a noise level above 115 dBA, or an impulsive or impact noise measured above 140 dB for further action as required by WAC 296-817-200.

Exposure to noise over a period of time over recognized standards can cause harm and damage the ability to hear. Our policy is to identify areas where the noise exceeds regulatory standards and to take engineering and administrative steps where practical to reduce the exposure to below actionable levels. Where engineering and administrative controls do not reduce the level adequately, personal protective equipment (hearing protection) will be provided, and wearing it is required.

Job Hazard Assessment and Sound Level Surveys

Supervisors are to assess the hazards in work areas and recommend corrections. In areas or tasks with high noise levels (where you would need to raise your voice to be heard at a 3-foot distance), they are to use a sound level meter, conduct a survey, and record the findings. Depending upon the survey results, employees will be enrolled in the hearing conservation program, and audiometric testing will be performed.

Employees are to be notified when the surveys will be conducted in their area and provided an opportunity to witness. Survey results will be provided to the employee within five days of receiving results.

If the survey indicates the work environment has continuous noise levels above 85 dBA TWA8, 115 dBA slow response, or impulse noise of 140 dBA, the area will be posted, and employees will be required to wear hearing protection. The affected employees will be enrolled in the hearing conservation program.

Employees

Employees are to report areas and activities that produce high noise levels and to wear PPE when instructed by their supervisor.

Preventing Hearing Loss

Hearing loss caused by continuous exposure to noise can be prevented. When sound levels equal or exceed 85 dBA, an effective hearing conservation program will be administered.

Engineering Controls

When employees are subjected to sound levels equal to or exceeding 85 dBA, administrative controls are utilized when possible. These include:

- Maintenance of machinery to reduce noise level.
- Modification of equipment.
- Substitution of equipment.
- Isolation from the noise source.
- Installation of acoustic material to absorb noise.

If these measures do not reduce noise, personal protective equipment and/or administrative controls will be provided and used.

Administrative Controls

When employees are subject to sound levels equal to or exceeding 85 dBA, administrative controls are utilized. These include:

- Rotation of employees.
- Limitation of time for exposure to operation.
- Restricted area of work operation.

Types of Hearing Protection

There are several types of hearing protection available:

- Disposable ear plugs.
- Reusable ear plugs, custom fit.
- Ear canals.
- Ear muffs.

These devices aim not to eliminate all sound but to prevent overloading the ears with loud, unnecessary noise. Speech and warning signals are more easily understood if the total intensity of all noise is reduced. Working conditions and personal preference determine the hearing protection used. The devices of choice must be worn properly and continuously to protect hearing.

When employees work on multiple sites or equipment with varying degrees of noise, two types of hearing protection must always be on hand.

- Disposable foam ear plugs.
- Ear muffs.

With two levels of hearing protection available, employees can wear only the foam plugs or the ear muffs, or, when in the presence of very loud noise, both the foam plugs and the ear muffs. This provides employees working with differing noise levels with a broad range of hearing protection.

Hearing Protection Training and Recordkeeping

Employees exposed to noise at or above the 8-hour time-weighted average (TWA) of 85 dBA shall participate in our hearing conservation program and receive training regarding hearing protection.

The training will be presented periodically to all affected employees and repeated annually. The training will include the following:

1. The effects of noise on hearing and noise control principles.
2. The purpose of hearing protection, the advantages, and disadvantages.
3. The attenuation of various types of hearing protection.
4. Instruction on selection, fitting, use, and care of hearing protection.
5. The purpose of audiometric testing and an explanation of the test procedures.
6. The rights of employees to access records on sound measurements and audiometric testing.

All training and educational materials, as well as the Noise/Hearing Protection Standard, shall be available to the employee or his/her representative upon request to the Workers' Compensation Specialist. Audiogram and noise exposure records will be maintained as a part of the employee's permanent record in Human Resources and shall be available to the employee or his/her representative.

Records of Noise Surveys/Monitoring, results of special noise studies, and records of special actions or engineering controls installed to control noise exposure will be maintained indefinitely.

Audiometric Testing and Oversight

The district will provide audiometric testing and program review by a licensed audiologist, otolaryngologist, or other qualified physician for all employees in the hearing conservation program. All audiograms will be conducted by one of these licensed healthcare providers or a technician certified by the Council of Accreditation in Occupational Hearing Conservation (CAOHC) and responsible to a qualified reviewer.

CONFINED SPACE PROGRAM

Purpose: This program is established to protect the safety and health of all school district employees and others who enter confined spaces for maintenance, repairs, and other reasons.

The Washington Administrative Code WAC 296-809, governs confined space entry guidelines. These guidelines are intended to provide standards for acceptable conditions for entry and establish procedures for safe entry, work, and egress. Confined spaces are identified and classified as either "permit-required," "controlled hazards only," or "non-permit-required" confined spaces.

Procedures: District personnel responsible for supervising, planning, entering, or participating in confined space entries will be trained in their duties before assignment(s).

The district will identify and mark all confined spaces on school district property with appropriate warning signs.

As part of this policy, a list of the identified permit-required confined spaces located on district property, along with any known hazards related to each confined space, is attached.

Definitions

A **confined space** is an enclosed space that:

- is large enough for an employee to enter;
- has limited or restricted means of entry or exit (for example, tanks, vaults, wells, tunnels, pits, maintenance holes, catch basins); and
- is not designed for continuous human occupancy.

A **permit-required confined space** (PRCS) is a confined space that:

- contains or has the potential to contain a hazardous atmosphere;
- contains a material that has the potential to engulf an entrant;
- has an inside configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or a floor that slopes downward and tapers to a smaller cross-section; or
- contains any other recognized serious hazards.

Entry is when a person passes through an opening into a permit-required confined space.

An **entry permit** is a written or printed document that allows and controls entry into a permit-required space.

Engulfment is the surrounding, capturing, or both of an entrant by divided particulate matter or liquid.

A **hazardous atmosphere** is an atmosphere that may expose employees to the risk of death or incapacitation, injury, or illness due to oxygen deficiency or enrichment (less than one 9.50/0 or greater than 230/0 oxygen by volume), flammability, explosives, or toxicity.

A **non-permit required confined space** is a space that meets the definition of a confined space by configuration but which, after evaluation, is found not to contain, or with respect to atmospheric hazards, does not have the potential to contain any hazard capable of causing death or serious physical harm.

All Supervisors and employees will follow these rules:

- Supervisors shall ensure that all employees who may enter or work around confined spaces have confined space awareness training.
- Prior to any entry of a permit-required or non-permitted confined space, a hazard assessment will be made, and the space will be classified.
- To evaluate the space's identified hazards, consider the scope of hazard exposure, the magnitude of hazard, likelihood and consequences of hazard occurrence, changing conditions/activities, and impact on the need for emergency response. Testing will be conducted in the presence of entrants.
- Based on the evaluation of hazards, classify and list confined spaces as either permit-required or non-permitted confined spaces.
- If a permit is required, complete the Confined Space Entry Permit in detail.
- Expired and completed permits will be saved for one year and used to evaluate the effectiveness of the confined space programs.

Periodic Evaluation of Hazards

Periodic re-evaluation of the hazards will be performed based on possible changes in activities in the confined space or other physical or environmental conditions that could adversely affect the space. Information from expired and completed Confined Spaced Entry Permits will be used.

Marking of Confined Spaces

Signs or other warnings shall be posted to alert employees of the danger of the particular confined space. "Danger. Permit-Required Confined Space. Do Not Enter" signs, barriers, or other means to keep unauthorized persons out of the permitted space may be used.

Entry into Confined Spaces

EXCEPT UNDER APPROVED PERMIT, NO EMPLOYEE WILL BE ALLOWED TO ENTER A PRCS.

Entry into a permit-required confined space (PRCS) will be in accordance with the instructions of the Entry Supervisor and the Confined Space Entry Permit.

- The permit will be available in the confined space, has been reviewed by all involved, and procedures on the permit followed.
- Periodic testing of the atmosphere will be conducted, and the results will be noted on the permit.
- Any change in conditions from acceptable entry conditions will require immediate evacuation from the confined space and the permit will be canceled. A new permit will be required before re-entry.
- After the work is finished, the issuing Director of Maintenance/Operations must be notified.

Proper traffic control, warning devices, and guards will be set in accordance with Roadway and Traffic Design Standards and other safety standards, which may be adopted to warn the public passing through the area.

If the Entry Supervisor has determined that the only hazard in the identified confined space is atmospheric, and ventilation alone can control the hazard, then entry into the confined space may be authorized. In such a case, the requirements for alternative protection procedures shall be followed.

No open flame, torch, or lighted smoking material shall be brought near an open manhole, cable vault, or sewer or taken into any of these areas, even though tests indicate the atmosphere inside is free of combustible gases, vapors, or fumes. No employee will enter these spaces even momentarily until they have been tested properly with detecting devices for explosive gases, oxygen deficiency, and hydrogen sulfide.

Use of Safety Harness and Life Lines

Employees who are required to enter manholes, cable vaults, sewers, or pits shall wear a safety harness and a lifeline. The lifeline will be attached to an appropriate rescue retrieval device, which allows recovery without entry into the space. Hard hats shall be worn in all such structures that are over four feet deep. A trained attendant will remain outside the entrance to tend the line and provide emergency non-entry assistance if needed during the entire time anyone is inside an underground facility.

Those tending the lifeline will have available communication devices or be capable of communicating with the entrants, reaching rescue services, and calling for help.

Manhole Covers and Grates

Equipment to use—two tools may be used for unseating and moving covers and grates. They were devised specifically for these operations.

- Manhole cover hook - 28" long, four pounds, made of 5/8" octagonal, plated tool steel and hardened to prevent bending.
- Manhole cover lifter - 42 y2" L-shaped lever with handle, foot, and swing-out hook with the same details as that of the "cover hook."

The instructions that follow are written for removal and replacement with these tools.

Freeing
When a cover or grate is stuck in its frame, remove any encrustation with a cold chisel. Then, place a block of wood on the cover near the rim and hit the block with a heavy hammer. Do this at different points until the cover is loosened. Try to avoid causing sparks by any of your activities. Use a railroad pick to complete the freeing operation.

Unseating
Lift with a tool that provides adequate handhold and a positive hold on the cover. On a round manhole cover, engage the circumferential bib before lifting. Unseat the grate or cover about four inches by pulling and lifting with the leg and arm muscles.

NEVER place the fingers or hands under a cover. Spider bites or mashing can result.

Removing

- Use a helper when available.
- Clear the area of any hazards to footing.
- With your feet spread and footing secure, pull the cover clear of the frame and keep pulling until the cover or grate is in a non-hazardous location. Pull with the arm and leg muscles.
- Pull parallel to any traffic so you do not tumble into the path of a vehicle if your hook slips. Also, do not pull toward precipices (steep slopes) or other hazards that are near the manhole.

Replacing A Round Cover or Grate

- Stand parallel to the desired direction of travel with the toes in the clear.
- Place the point of the hook under the edge of the cover nearest you. Lift slightly and swing the cover toward the structure.
- Move to the opposite side and repeat the lifting and swinging.
- Continue this alternate lifting and swinging until the cover is partially over the structure's opening. With the hook, lift the edge farthest from the opening. Lift until the cover or grate slips into the structure's frame.
- If a helper is available with another hook, stand on opposite sides of the cover parallel to the direction of travel, securely hook it under the cover, and slide it into the frame.

Rectangular Covers and Grates

- Follow the first four items above.
- Use a helper. Single grates weigh up to 326 pounds.
- When pulling the cover clear of the frame, be sure you pull in line with the frame so the cover cannot fall into the opening.
- When replacing, be sure to pull straight into the frame so the cover or grate does not fall into the opening.

FALL PROTECTION PROGRAM

Purpose: To help reduce or eliminate fall hazards and protect employees, the school district has established a Fall Protection Program. This program applies to all employees involved in construction, alteration, repair, or maintenance and everyone who is assigned to perform tasks where fall hazards of ten feet or more exist.

The general standards for "Fall Restraint and Fall Arrest" are set forth in WAC Chapter 296-880, Unified Safety Standards for Fall Protection. This program involves establishing a fall protection work plan, system, or combination of prevention and protection measures.

Procedures: This program sets forth requirements for employers to provide and enforce the use of fall protection for employees performing activities covered under this chapter.

Fall Protection Program Description

The district's Fall Protection Program is administered by Facilities Services and falls under the compliance guidelines for Unified Safety Standards for Fall Protection.

The district will take all practical measures possible to prevent employees from being injured by falls, regardless of height. We will take the necessary steps to eliminate, prevent, and control fall hazards. Protective measures will be taken to prevent employees from falling from a height of 4 feet or more.

When personnel are likely to fall from heights of at least 6 feet, the supervisor will develop a site-specific fall protection work plan. First, consideration will be given to eliminating fall hazards. If a fall hazard cannot be eliminated, effective fall protection will be planned, implemented, and monitored to control the risks of injury from falling.

All personnel exposed to potential falls from heights will be trained to minimize their exposure. Fall protection equipment will be provided, and all employees will be required to use it. Supervisors will be responsible for continued training and enforcement of the fall protection program.

Fall Protection Required Regardless of Height

Floor holes into which persons can accidentally walk shall be guarded by either a standard railing with a standard toe board on all exposed sides or a floor hole cover of standard strength and construction secured against accidental displacement. While the cover is not in place, the floor hole shall be protected by a standard railing.

Regardless of height, open-sided floors, walkways, platforms, or runways above or adjacent to dangerous equipment, such as material handling equipment and similar hazards, shall be guarded with a railing and toe board.

Fall Protection Required at 4 Feet or More

Every open-sided walking/working surface or platform 4 feet or more above the adjacent floor or ground level shall be guarded by one of the following fall protection systems. Examples of such raised walking surfaces are wall openings, excavations, holes, ramps, runways, walkways, scaffolding, and low-slope roofs, and there may be many others.

1. A standard railing, or the equivalent, on all open sides, except where there is entrance to a ramp, stairway, or fixed ladder. The railing shall be provided with a standard toe board wherever, beneath the open sides, persons can pass, or there is moving machinery, or there is equipment with which falling materials could create a hazard.
    - When employees are elevated and working next to the standard railing and could fall over the top rail, the height of the standard railing shall be

increased by an amount equal to the height at which the employee is working.
    - When employees are elevated above the standard railing but not working next to the standard railing, where there is still a potential for the employee to fall over the top rail, the height of the railing shall be increased. To account for the arc of travel in a free fall and ensure the standard railing meets the employee above their center of gravity, the railing shall be increased to a height so that the measurement taken from the outer edge of the elevated surface, where the employee is working to the top of the standard railing must be equal to or greater than 39 inches. The measurement must be taken at a 45-degree or greater angle from the horizontal.
2. A personal fall restraint system.
3. A personal fall arrest system.
4. A warning line system.
5. A standard guardrail system.
6. A safety watch system.

Fall Protection Required at 6 Feet or More

The district will develop and implement a site-specific plan, including each area of the workplace where employees are assigned and fall hazards of 6 feet or more exist.

The work plan will identify all fall hazards in the work area; describe the method of fall arrest or fall restraint to be provided; describe the procedures for the assembly, maintenance, inspection, and disassembly of the fall protection system to be used; describe the proper procedures for the handling, storage, and securing of tools and materials; describe the method of providing overhead protection for workers who may be in, or pass through the area below the work site; describe the method for prompt, safe removal of injured workers; and be posted or available onsite.

Prior to permitting employees into areas where fall hazards exist, the supervisor will ensure that employees have received training in the site fall protection work plan and that all fall protection restraint and fall arrest systems have been inspected and comply with the work plan.

Fall Protection Systems

Guardrail Systems: Guardrail systems must meet the following criteria. The top edge height of top rails, or (equivalent) guardrails, must be 42 inches, plus or minus 3 inches, above the walking/working level.

The guardrail system must be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction. Mid rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding a force of at least 150 pounds applied in any

downward or outward direction at any point along the mid rail or other member.

Note: A safety warning line system may be used in place of the guardrail system. The warning line must be erected 15 feet back from the unprotected edge. Caution or danger tape is acceptable for a warning line. WISHA will accept it as equivalent to a flagged rope or chain warning line.

Fall Arrest Systems: These consist of an anchorage, connectors, and a body harness and may include a deceleration device, lifeline, or suitable combinations. lf a personal fall arrest system is used for fall protection, it must do the following:

- Limit maximum arresting force on an employee to 1,800 pounds.
- Be rigged so that an employee can neither free fall more than 6 feet nor contact any lower level.
- Bring an employee to a complete stop and limit the maximum deceleration distance an employee travels to 3.5 feet
- Have sufficient strength to withstand twice the potential impact energy of an employee free-falling a distance of 6 feet or the free-fall distance permitted by the system, whichever is less.
- All personal fall arrest systems shall comply with ANSI Z359.1-2020.

The use of body belts for fall arrest is prohibited. A full-body harness is required. Personal fall arrest systems must be inspected prior to each use for wear, damage, and other deterioration. Defective components must be removed from service.

Safety Net Systems: Safety nets must be installed as close as practicable under the walking/working surface on which employees are working and never more than 30 feet below such levels. Defective nets shall not be used. Safety nets shall be inspected at least once a week for wear, damage, and other deterioration. Safety nets shall be installed with sufficient clearance underneath to prevent contact with the surface or structure below.

Items that have fallen into safety nets, including, but not limited to, materials, equipment, and tools, must be removed as soon as possible and at least before the next work shift.

Fall Restraint Systems: Full body harnesses (no safety belts) will be used as a means of fall restraint.

Each employee assigned to work at elevated heights has the responsibility of thoroughly inspecting the personal fall protection system prior to use. If the harness or lanyard is seriously worn or damaged, it shall be promptly removed from service and returned to the site supervisor. Damage includes but is not limited to frayed or broken fibers, pulled or torn stitching, abrasions, mold, burns, and discoloration of original fibers. Oil-soaked harnesses should also be promptly removed from service.

If a fall occurs, the fall protection equipment (full-body safety harness, lanyard) being used at the time must be retrieved and turned over to the site supervisor. The job site supervisor/safety coordinator will fully investigate any fall and provide the employee with new fall protection equipment.

Harness and lanyards must only be used as personal equipment. Should any of these items be subject to actual loading or impact force as developed in arresting a fall, they must be removed from service and destroyed.

Lanyards must be secured at a level not lower than the user's waist, when practical, at the highest possible point above the work location. The lanyard should limit the fall distance to a maximum of 4 feet. In addition, all lanyards must be secured to a substantial structure.

When attaching the lanyard, keep in mind what hazards are directly below the work area, should a fall occur.

Any questions concerning the type of personal fall protection systems best suited for a particular job, as well as system installation, should be directed to the supervisor or safety coordinator/safety department.

The full-body harness must be worn as designed and as intended by the manufacturer. Full-body safety harnesses, lanyards, and hardware must meet the specifications set forth in ANSI Standard A10. 14 -1975; Requirements for use in the Construction and Industrial Areas.

Safety Watch System: When work other than construction is performed 15 feet or more from the roof edge, the employer is not required to provide any fall protection. However, if the work is infrequent and temporary and the employer implements and enforces a work rule prohibiting employees from going within 15 feet of the roof edge, employers are allowed to use a safety watch system.

- Ensure the safety watch system meets the following requirements:
    - There can only be two people on the roof while the safety watch system is being used: One employee acting as the safety watch and one employee engaged in the repair work or servicing equipment.
    - The employee performing the task must comply promptly with fall hazard warnings from the safety watch.
    - The safety watch system can only be used on low-pitched roofs that have a pitch no greater than four in twelve (4/12).
    - The safety watch system cannot be used when weather conditions create additional hazards.
    - The employee acting as the safety watch must meet the definition of a competent person as defined in WAC 296-880-095. The safety watch employee must have full control over the work as it relates to fall

protection, have a clear, unobstructed view of the worker, be able to maintain normal voice communication, and perform no other duties while acting as the safety watch.

Training

All employees exposed to falls will be trained in the Fall Protection Program. General fall protection training is a requirement for all maintenance/facilities employees as of new employee orientation.

Site-specific training will be provided for site-specific fall protection work plans prior to the employee commencing work in the area. Site-specific training documentation will be maintained at the work site, with a signed training receipt for each employee filed with the employee's safety training records.

Retraining will be provided whenever there is a change in procedure or equipment, a change in job task assignments, or when the supervisor notes deficiencies in training.

BLOODBORNE PATHOGENS PROGRAM

Purpose: To provide a safe environment for all employees who may be potentially exposed to blood or body fluids during the performance of their duties, resulting in occupational exposure to bloodborne pathogens.

Procedures: All employees shall receive training on the district's initial Exposure Control Plan, which will be updated whenever the introduction of new or modified tasks or procedures warrants it. For each individual occurrence, employees are required to report according to the district's published Bloodborne Pathogen Exposure Procedures. More information about reporting an on-the-job injury can be found on the district's web page.

BBP: Employee Packet
BBP: Administrator Packet

Universal Precautions

The term "universal precautions" refers to a method of infection control in which all human blood and other potentially infectious materials are treated as if known to be infectious for HIV and HBV (Hepatitis B virus). Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, or vomit unless they contain visible blood.

Personal Protection

AVOID these activities:

- Rubbing or touching eyes.
- Use of jewelry during work hours.

REFRAIN from these activities:

- Kissing or being kissed by students.

ONLY USE:

- Own personal care items; don't share drinking glasses, etc.

HANDWASHING

Handwash BEFORE:

- Drinking, eating, or smoking.
- Handling clean utensils, equipment, or food.

Handwash BEFORE AND AFTER:

- Going to the bathroom.

Handwash AFTER:

- Contact with any body secretions.
- Handling soiled diapers, garments, or equipment.
- Caring for children, especially those with discharges.
- Removing disposable gloves.
- Removing lab coat or smock.

GLOVES

WHEN to wear gloves:

- lf care provider has an open lesion on his/her hands.
- Handling contaminated disposable items (tissues, diapers, etc.)
- Direct hand contact with body fluids is anticipated.
- Cleaning up body fluid spills.
- Diapering.

TYPE of gloves to wear:

- Non-sterile latex or vinyl (intact) disposable - dispose after each student contact.
- General purpose utility gloves (e.g., rubber) - household gloves for housekeeping chores may be decontaminated and reused.

NOTE: Dispose of disposables in plastic-lined wastebaskets and empty them daily.

Exposure Determination

Below are examples of occupational groups in schools considered at risk; however, individual job duties must be considered when determining those employees at risk.

1. Health Room Providers (Nurses, Health Services Assistants, Office Managers, and Secretaries caring for children in the Health Room).
2. Occupational Therapists, Physical Therapists, and Speech and Language Pathologists.
3. Coaches and their hired assistants.
4. Custodians.
5. Teachers and paraeducators working in classrooms serving students that may present an increased risk of exposure to bloodborne pathogens (e.g.. students requiring diapering or other personal care; students with difficulty controlling secretions; students prone to behaviors such as biting).
6. Bus drivers and assistants transporting the above students.
7. Security personnel.
8. Employees who are required by their job description to administer First Aid as a part of their job (e.g., playground supervisors).

People DO NOT get infected with HIV by:

- Casual contact in schools, at parties, sharing food, in swimming pools, or the place of work.
- Hugging, shaking hands, or simply being near a person who is infected with the virus.
- An insect bite.
- Contact with a toilet seat.

Additional Reminders

IV drug use (sharing needles) and unprotected sexual intercourse increase the chances of acquiring other sexually transmitted diseases (STDs), which in themselves can cause sterility, death, and increase susceptibility to HlV.

Being under the influence of a drug (including alcohol) can impair your judgment and increase the possibility of risky behavior, such as IV drug use or unprotected sexual intercourse.

Pregnant women who are infected with HIV can pass the HIV to their fetus.

HIV carriers may not show any sign of having AIDS for years, and in fact, they may even test negative on an antibody test for many weeks or months after they have been infected, but they can still spread the disease. lf a person has engaged in risky behavior, they are at risk of being infected.

Abstinence is 100 percent safe. Proper latex condom use and limiting partners significantly reduces, but does not eliminate, the risk of HIV infection.

AIDS
A Acquired - not inherited.
I lmmune - dealing with the body's defense system.
D Deficiency - decreased defense capability.
S Syndrome - an observable set of clinical diagnoses.

HIV
H Human - refers to a virus whose host is a person.
I Immunodeficiency - decreasing immune function in a person.
V Virus - an organism that infects and destroys human cells.

STAGES OF HIV INFECTION

STAGE 1
Acute infection and seroconversion.

STAGE 2
Asymptomatic infection.

STAGE 3
Persistent generalized lymphadenopathy.
**Two or more sites for at least three months with no other cause.

STAGE 4
**Other diseases
**Constitutional disease
**Neurological disease
**Secondary infectious diseases
**Secondary cancer
**Other conditions

HAZARDOUS WASTE MANAGEMENT & EMERGENCY RESPONSE PLAN

Purpose: The hazardous waste management and emergency response plan is designed to protect employees from harmful hazards while handling, storing, and removing hazardous waste within the confines of the district. The plan also provides guidelines for chemical spill control.

Procedures: The district will ensure that all employees who handle chemicals are trained in proper waste handling and emergency procedures.

Program: Please refer to the district's Emergency Response Plan located at each site. This program contains information regarding the district's Hazardous Waste Management Plan procedures.

CHEMICAL HYGIENE PLAN

Purpose: The Chemical Hygiene Plan is a document designed to express the district's policies and procedures relating to the safe operation of the school laboratory and the protection of individual employees who may be exposed to hazardous chemicals.

Procedures: The district will ensure that all employees who are assigned to work in a laboratory workplace (instructors and aides) and those that may be required to enter (i.e., maintenance and custodial staff) will receive training in the district's Chemical Hygiene Plan.

Chemical Hygiene Program

Purpose of This Plan

This Chemical Hygiene Plan is a document designed to express the policies and procedures adopted by the district as they relate to the safe operation of school laboratories. The goal of the Laboratory Standard is to provide a safe laboratory workplace, and it includes requirements on occupational exposures to hazardous chemicals.

The Laboratory Standard requires that employers protect workers through the development and implementation of a Chemical Hygiene Plan tailored to the individual laboratory workplace. The purpose of this Chemical Hygiene Plan is to protect employees from harm due to exposure to hazardous chemicals while they are working in the laboratory.

Many policies and practices may not be part of the Chemical Hygiene Plan, yet they are crucial to the planning process and must be part of maintaining a safe environment for employees and students. The number of students per class or teacher and the amount of physical space available to each student are examples of policies and practices that affect the establishment of a safe environment but are not required by WISHA to be included in the Chemical Hygiene Plan.

What Is Covered by the Chemical Hygiene Plan?

"Laboratories" are defined as facilities where the "laboratory use of hazardous chemicals" in which all of the following conditions are met:

- Chemical manipulations are carried out on a laboratory scale.
- Multiple chemical procedures or chemicals are used.
- The procedures involved are not part of a production process nor in any way simulate a production process.
- Protective laboratory practices and equipment are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

"Hazardous Chemical" means a chemical for which there is statistically significant evidence, based on at least one scientific study, showing that acute or chronic health effects occur in exposed employees. A chemical prepared for the first time and for which safety data is not available should be treated as a “hazardous chemical" until data is available to show otherwise. The term "health hazard" includes carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, sensitizers, and corrosives.

"Employees" who must abide by this Chemical Hygiene Plan are individuals employed in the workplace who may be exposed to hazardous chemicals in the course of their assignments. Included are employees who work in the laboratory, such as instructors

and teacher's aides, and other district employees who enter the laboratory to perform their assigned responsibilities, such as maintenance and janitorial personnel.

"Laboratory scale" means work with substances in which the containers are used for reactions, transfers, and other handling of substances that are designed to be easily and safely manipulated by one person.

What Is Not Covered by the Chemical Hygiene Plan

The Chemical Hygiene Plan addresses the protection of employees. Since students are not employees, they are not officially covered by provisions of the Chemical Hygiene Plan. However, since this document contains guidance on generally accepted good laboratory practices, it should be used to establish minimal safety instructions and procedures for students.

The Plan does not cover laboratory uses of hazardous chemicals that provide no potential or employee exposure, including procedures using chemically impregnated test media, such as Dip-and-Read tests.

Laboratory visitors, such as sales staff, outside repairpersons, and guests, are not included in the definition of employee and are not addressed in the Chemical Hygiene Plan. All such persons should be offered the same protection given to employees and students. At a minimum, visitors will be provided with goggles and other necessary personal protective equipment and be escorted while in the lab area.

Summary of the Chemical Hygiene Plan

In compliance with WAC 296-828-20005, EPS has prepared and implemented the Chemical Hygiene Plan (CHP). Adherence to the CHP will ensure that employees will be protected from health hazards associated with hazardous chemicals in the laboratory and from exposure to regulated substances at a level that will not exceed the permissible exposure limits.

This Chemical Hygiene Plan is composed of the following sections:

- This introduction states the goal and basis for the Chemical Hygiene Plan.
- A list of the district personnel responsible for various aspects of the CHP and its implementation.
- General principles that identify the guidelines for working with laboratory chemicals.
- Standard Operating Procedures for Laboratories, whose implementation will help the Chemical Hygiene Officer and all employees meet the goals of the CHP.
- Recordkeeping requirements and procedures for reporting items related to laboratory health and safety.
- Laboratory safety procedures.
- Procedures for inspecting laboratories and reviewing the Chemical Hygiene Plan.

- A description of the situations in which employees must use Specific Exposure Control Measures.
- Information regarding training opportunities for employees.
- Emergency Response Procedures.
- Spill Response Procedures.
- Useful forms.

DISTRICT ORGANIZATION

Compliance with the district's Chemical Hygiene Plan is the responsibility of all employees involved in the laboratory science program. However, certain employees and entities are specifically charged with monitoring compliance with the Chemical Hygiene Plan. Specific duties have been assigned to the following district positions:

Superintendent

The Superintendent has the ultimate responsibility for chemical hygiene within the district. Along with other administrators, the superintendent will provide continuing support for districtwide chemical hygiene programs, including the development and enforcement of the Chemical Hygiene Plan.

District Chemical Hygiene Officer

The District Chemical Hygiene Officer must be qualified by training and experience to provide technical guidance in the development and implementation of the Chemical Hygiene Plan. The District Chemical Hygiene Officer will report to the district's Risk Manager for duties associated with Chemical Hygiene Officer responsibilities and Plan compliance. The responsibilities of this position require the District Chemical Hygiene Officer to:

- Implement the Chemical Hygiene Plan and conduct the associated training programs.
- Assist the School Chemical Hygiene Officers in the execution of their duties.
- Maintain a list of School Chemical Hygiene Officer(s) to monitor the procurement, use, and disposal of chemicals used in the schools' laboratory and other programs.
- Conduct school lab visits to ensure that laboratory equipment is inspected as required and that records of inspections are maintained.
- Assure that the Chemical Hygiene Plan is reviewed annually and revised as needed to ensure compliance with current legal requirements.
- Review requests to use chemicals identified as explosive, carcinogenic, mutagenic, highly toxic, or otherwise represent a high risk for general school laboratories.
- Keep records of employee exposure to hazardous chemicals for 30 years beyond the time of exposure. The employee should file these records with the school district in writing within two weeks of the exposure.

- Assure that medical consultations and examinations are acquired as a result of exposure to hazardous chemical(s).
- Provide training for lab science teachers and staff in chemical hygiene, hazardous material management, and lab safety.

School Chemical Hygiene Officer

The School Chemical Hygiene Officer will serve as the building's contact person for chemical hygiene programs. The District Chemical Hygiene Officer will consult with building principals to facilitate the appointment of School Chemical Hygiene Officers. School Chemical Hygiene Officers are responsible for chemical hygiene training and compliance procedures for that school. In most schools, the Chemical Hygiene Officer's duties will be assigned to the Science Department head, a science department supervisor, or a science teacher.

The School Chemical Hygiene Officer will have the responsibilities listed below:

- Ensure that employees receive training in their responsibilities for compliance with the Chemical Hygiene Plan and laboratory safety practices.
- Ensure that employees have access to the Chemical Hygiene Plan, Safety Data Sheets (SDS), and other suitable reference materials. A selected bibliography is included in Appendix B.
- Conduct regular, formal chemical hygiene and housekeeping inspections.

School Employees

All employees working in a laboratory area are responsible for:

- Compliance with the Chemical Hygiene Plan.
- Participating in training programs provided by the school or district.
- Maintaining awareness of health and safety hazards.
- Planning and conducting each operation in accordance with the school district's chemical hygiene procedures.
- Consulting reference materials, including material safety data sheets, related to chemical safety whenever appropriate.
- Reporting accidents, injuries, unsafe practices, and unsafe conditions.

Students

The District Chemical Hygiene Plan does not specifically cover students as the requirement to have and comply with a Chemical Hygiene Plan is directed at employers for the protection of employees. However, good personal chemical hygiene habits should be taught to all students at every reasonable opportunity, particularly to those who use the laboratory while enrolled in science courses. Students should not be allowed to use school laboratories outside of regular science course classes unless they first obtain permission and are directly supervised by the instructor during their work.

GENERAL PRINCIPLES

The following statements and explanations are general principles for the use of those handling laboratory chemicals. While the list is not complete, these concepts provide the fundamental underpinning for laboratory work in the district.

Be Prepared

The district will provide training to employees on how to find and use information from SDSs and this Chemical Hygiene Plan. Employees are required to familiarize themselves with the hazards associated with the chemicals they expect to use and must take appropriate steps to minimize their exposure to those chemicals.

Follow the Chemical Hygiene Plan

Employees are required to follow the practices specified in the Chemical Hygiene Plan to minimize their health and safety risks.

Minimize Exposures to Chemicals

Laboratory chemicals present hazards of one type or another. Employees will follow general precautions when handling all laboratory chemicals. Specific guidelines for some chemicals, such as those found in the appropriate SDSs, will also be followed.

Consider the Risk

The decision to use a particular substance will be based on the best available knowledge of each chemical's particular hazard and the availability of proper handling facilities and equipment. Substitutions, either of chemicals or experiments, will be made where appropriate to reduce hazards without sacrificing instructional objectives. When the risk outweighs the benefit, and no substitute is available, then the experiment or procedure will not conducted.

Observe PELs and TLVs

The permissible exposure limit (PEL) and threshold limit value (TLV) of a typical laboratory chemical are available on the SDS for that chemical. Staff exposure to hazardous chemicals should not exceed those limits.

Adequate Ventilation

The best way to prevent exposure to airborne substances is to prevent their escape into the laboratory by using hoods or other ventilation devices. Fume hoods will be inspected quarterly. All inspections will be recorded, and a file containing all inspection documentation will be maintained at the school.

Use Safety Data Sheets

District employees will not accept a chemical from a supplier unless it is accompanied by the corresponding SDS or if the SDS from that supplier for that chemical is already on file. All SDSs must be accessible to employees at all times. Employees will be provided with training on how to use SDSs.

STANDARD OPERATING PROCEDURES

The goal of the Chemical Hygiene Plan is to protect employees and students working in district labs from injury due to hazardous chemicals. This section is written in several parts and is meant as a guide for the district and its employees. The District or School Chemical Hygiene Officer may add additional general or specific safety rules for a particular laboratory as needed.

It is recommended that these same standards be communicated to students, expected of students, and promoted by school and laboratory personnel.

General Rules

The instructor (and aide, if any) will review laboratory instructions, safety procedures, and reagents prior to each laboratory activity. They should be aware of the following:

- The chemical hazards for each chemical, as determined from the SDS or other appropriate reference.
- Appropriate safeguards for using each chemical, including personal protective equipment.
- Location and proper use of emergency equipment.
- Proper storage of chemicals.
- Appropriate personal hygiene practices.
- Correct methods for transporting chemicals within the laboratory facility.
- Appropriate procedures for emergencies, including evacuation routes, spill cleanup procedures, and fire control.
- Proper procedures for the disposal of hazardous substances.
- Procedures for notifying supervisory persons in the case of an accident or injury.
- Whenever chemicals are in the laboratory and not in locked cabinets or storerooms, the unattended laboratory will be locked.

Working Alone

Staff should not work alone in a laboratory or chemical storage area unless other employees are in the vicinity and are aware that someone is there, in which case periodic checks should be made. Students may not be permitted to work alone in a laboratory or chemical storage area.

Personal Protective Equipment (PPE)

Washington State employers are required to have a Personal Protective Equipment Program per WAC 296-800-160. Employers are required to conduct and document assessments for potential hazards within the workplace and use the assessment findings in the selection of appropriate PPE for employees (and students). Employees (and students) must be provided with training in the proper use of PPE. Once trained, employees (and students) are required to use appropriate protective clothing and equipment. Laboratory aprons or coats, eye protection, and non-permeable gloves are considered standard equipment for school laboratory programs.

The School Chemical Hygiene Officer will be responsible for selecting, purchasing, and maintaining PPE. The District Chemical Hygiene Officer, the District PPE Program, and WAC 296-800-160 provide guidance on conducting hazard assessments, selecting appropriate equipment, and training and using PPE.

Eye Protection

Everyone in a laboratory, including visitors, is required to wear eye protection when working or observing others working with chemicals.

Eye goggles should provide splash and impact protection and will conform to ANSI Standard 287.1-1989. Eyeglasses, even with side shields, are not acceptable protection against chemical splashes.

Each school is required to have and use equipment for cleaning and sterilizing goggles. Sterilizers must be used whenever two or more persons use the same goggles (staff or students).

Contact lenses are not necessarily prohibited in the laboratory. If contact lenses are permitted, chemical splash goggles must also be worn at all times. Because there may be a need to remove contacts quickly, contact lens wearers should inform the appropriate personnel of the contacts before an emergency arises.

Approved standing shields or face shields should be used when there is potential for splashes or when corrosive liquids are used. Goggles should be worn whenever using standing or face shields.

Protective Clothing

Protective clothing worn in the laboratory must offer protection from splashes and spills, be easy to remove in case of an accident, and be fire resistant. Nonflammable, nonporous rubber or plastic aprons offer the least expensive protection. Aprons are to be long enough to cover from the neck area to the knees. Clean chemical and fire-resistant laboratory coats may be worn if they are long-sleeved and long enough to cover the knees. Snap fasteners or Velcro closures are better than buttons because the laboratory coat is more easily removed in an emergency.

Shorts, cutoffs, or short skirts should not be worn in the laboratory. Shoes must have low heels with fully covered "uppers." Open toes or uppers constructed of woven material are inappropriate for laboratory work. Jewelry such as rings or bracelets must be removed to prevent chemical seepage under the jewelry, contact with electric sources, catching on equipment, or damage to the jewelry itself.

Laboratory coats, jackets, aprons, or clothes on which chemicals have been spilled must be washed separately.

Respiratory Protection

The use of this method is not anticipated for secondary school instruction or incident response. Respiratory protection requires training from and approval by the District Chemical Hygiene Officer and the implementation of the program elements of WAC 296-842-100, Respirator Program, for equipment selection, purchase, and maintenance. Where the need for respirators has been established or must be determined through hazard assessments, contact the District Chemical Hygiene Officer or the District Safety Officer for assistance.

Gloves

There are no current ANSI (American National Standards Institute) standards for gloves. Glove selection must be based on the glove's performance characteristics in relation to the tasks to be performed.

When gloves are required, remember that no one kind of glove is suitable for all situations. The chemical's SDS contains specific instructions for selecting the proper type of gloves. For example, corrosion-resistant gloves should be worn when working with corrosive liquids.

Chemical resistance gloves may be made of rubber, neoprene, polyvinyl alcohol, vinyl, etc. They protect hands from corrosives, oils, and solvents. When selecting chemical resistance gloves, be sure to consult the manufacturer’s recommendations, especially if the gloved hand will be immersed in the chemical.

Gloves must be removed before leaving the laboratory or touching doorknobs, telephones, or laboratory notebooks.

Gloves must be checked before each use to ensure the absence of cracks and small holes and should always be worn with the same side out.

Advance Planning

Do not rely solely on the textbook, laboratory manual, or other instructional material for the safety precautions required for a particular experiment. Consult the SDSs for

chemicals and safety references for equipment, particularly when the anticipated experiment is new to the instructor. The instructor or laboratory aide should review potential hazards and specifically describe them to all classes and all students immediately before each experiment. The scale of the procedure should be reduced as much as possible to keep the generation of waste chemicals to a minimum. Use only those chemicals for which the ventilation system is adequate.

Personal Behavior

The laboratory will never be left unattended while students are performing an experiment in that laboratory. However, it is recognized that some experimental procedures, such as crystallization or incubation, are a normal part of some experiments and that such procedures may safely be left while they are in progress. The staff should use the best available information when deciding whether a particular procedure may be left unattended.

Horseplay, pranks, or other acts of mischief should not be tolerated in chemical work areas and laboratories. Additionally, employees or students are prohibited from performing activities using unauthorized chemicals. Students who exhibit inappropriate behavior, i.e., put themselves or others in danger, shall be immediately removed from class. Appropriate district disciplinary policies and procedures shall be applied.

Every precaution must be taken to ensure that unauthorized persons never remove chemicals from the laboratory. Unattended chemical storage areas must be locked, and visitors and students are not allowed to access chemical storage areas alone.

Personal Hygiene

Staff should use appropriate personal hygiene practices, including the following:

- Wash promptly whenever any hazardous chemical has contacted the skin, except in those few cases in which chemicals will react dangerously with water.
- Always use a bulb or other device for suction. Never pipette by mouth.
- Avoid inhalation of chemicals used for an experiment, including gases, vapors, and aerosols.
- "Wafting" to test chemical odors should only be done with extreme caution and only when specifically directed to do so in the written experimental procedure.
- Wash well with soap and water before leaving the laboratory, even if gloves have been worn.
- Never wash with organic solvents.
- Be aware that tobacco products in opened packages can absorb chemical vapors. Do not apply or store cosmetics in the chemical laboratory.
- Seek immediate and appropriate medical treatment whenever signs or symptoms of exposure to a hazardous chemical are manifested.
- Use proper glove etiquette.

Housekeeping

Because many accidents may be attributed to sloppy work areas, all laboratory spaces must be kept clean and contain only those items needed for the task at hand. Cleanup should immediately follow the completion of each operation and at the end of each day.

- Place all wastes in appropriate, segregated receptacles that are correctly labeled.
- Properly store all equipment and chemicals. Chemicals should not be stored in aisles, on the floor, in stairwells, on desks or laboratory tables, or in an open lab.
- Do not leave chemicals overnight on shelves over the workbench.
- Never block access to emergency equipment, showers, eyewashes, or exits.
- Clearly label all chemical containers with the identity of the contents and the hazards those contents present. Refer to Section 6.8 for proper labeling practice.
- Keep all cabinets and drawers closed when not in use to avoid catching and bumping hazards.
- Clean all working surfaces and floors on a regular basis. Keep the floor clear of slipping hazards such as ice, spilled liquids, glass beads, or other small items.
- Clean up all chemical spills as soon as they occur. Chemicals and cleanup materials should be disposed of correctly.

Food Handling

No food or beverages should be stored, handled, prepared, or consumed in the laboratory or other areas where chemicals are used or stored. Additionally, laboratory chemicals and laboratory equipment should not be brought into eating areas. Glassware or utensils that have been used for laboratory operations should never be used to prepare or consume food. Laboratory refrigerators, ice chests, microwave ovens, and cold rooms should not be used for food storage or preparation.

Glassware

Careful storage and handling procedures should be used to avoid glassware breakage. In the event of breakage, protection for the hands should be worn when picking up the broken pieces. The use of tongs is encouraged. Small pieces should be swept up with a brush and pan. Broken glass should be separated from other waste by placing it in a special container marked Broken Glass. Broken glass contaminated with chemicals must be treated as hazardous waste.

Use hand protection, such as heavy gloves or cloth towels, when inserting glass tubing into rubber stoppers or corks or when placing rubber tubing on glass hose connections. When inserting glass tubing into a stopper, the hands should be held close together to limit the movement of the glass, and the glass should be lubricated. Tubing should be fire-polished or rounded at the end.

Flammability Hazards

Open flames should not be used to heat a flammable liquid or to carry out a distillation under reduced pressure. Before lighting a flame, all flammable substances must be removed from the immediate area of the flame, and all containers of flammable substances in the area must be checked to ensure that they are tightly closed.

Flammable materials will be stored in a flammable liquid storage cabinet or other appropriate location. When transferring significant quantities of flammable liquids from one container to another, it is particularly important that they be properly grounded to prevent accidental ignition of flammable vapors and liquids from static electricity or other sources of ignition. Large quantities of flammable chemicals stored outside cabinets should be in flameproof storage cans that conform to NFPA (National Fire Protection Association) guidelines. Current NFPA Standards 30, Flammable and Combustible Liquids Code, and 45, Fire Protection for Laboratories Using Chemicals, and/or the applicable local fire codes should be followed.

Electrical Hazards

All electrical outlets should have a grounding connection accommodating a three-prong plug. GFIC receptacles are required if located near sinks. Most electrical equipment is wired with a three-prong plug. The grounding post should never be removed from such a plug. Some equipment is designed for safe use with two-prong plugs. All laboratories should have circuit breakers readily accessible. Employees are required to know how to cut off electrical service to the laboratory in case of emergency. Laboratory lighting should be on a separate circuit from electrical outlets so that electric service can be cut off during an emergency. All electrical outlets should be checked for continuity after initial occupancy (upon new construction or when first used by an employee) and whenever electrical maintenance or changes occur.

If electrical equipment shows evidence of improper heating, immediately unplug the device.

Compressed Gases

If compressed gas cylinders are used in the laboratory, procedures for their use should be in accordance with guidelines established by the Compressed Gas Association, particularly CGA P-l 919965, Safe Handling of Compressed Gases. Some of the more important considerations in using gas cylinders correctly are the following:

- No cylinder should be moved from one location to another until the protective cap is securely in place.
- Both full and empty cylinders should only be stored where straps, chains, or a suitable stand may securely restrain them.
- All cylinders should be fitted with the correct regulator and should have delivery tubes that do not leak and are tightly fastened to the cylinder.
- A cylinder should be considered to be empty when there is still a slight positive pressure.

- An empty cylinder should be returned to the supplier as soon as possible after having been emptied or when it is no longer needed.
- Cylinders should not be exposed to temperatures above 50°C (122°F).

Prior Approval

Teachers, instructors, and aides will obtain prior approval from the School Chemical Hygiene Officer whenever a new laboratory experiment or test is to be carried out. This prior approval is also required for experiments that have not been performed recently or for which the flammable or explosive chemicals are used individually or in combinations. The potential for harm may be affected by a change in the amounts of materials being used, the conditions under which the experiment is to be conducted, or the substitution, deletion, or addition of a chemical.

Prior approval before doing any procedure should be obtained where one or more of the following conditions exist:

- Potential for a rapid rise in temperature.
- Potential for a rapid increase in pressure.
- Substituting flammable solvent for one less flammable.
- Potential for chemical explosion.
- Potential for spontaneous combustion.
- Potential for the emission of toxic gases that could produce concentrations in the air that exceed toxic limits.
- Change in a procedure, even if the change is quite small.

Prior approval should be obtained before again performing any procedure after there has been a failure of any of the equipment needed for the process, especially of safeguards such as fume hoods. Accidents and equipment failures must be reported to the School Chemical Hygiene Officer.

RECORDKEEPING PROCEDURES

Specific records are required as a part of program compliance.

Air Concentration Monitoring

The district requires that records of air concentration monitoring be maintained for at least 30 years and that they are accessible to employees and/or their representatives. Such monitoring should be done as recommended by the District Chemical Hygiene Officer and follow generally accepted monitoring techniques.

Regular instrumental monitoring of airborne concentration is not usually justified or practical in school laboratories. Monitoring may be appropriate when toxic materials are used or stored or when ventilation devices are tested or redesigned. It is required after each documented incident of exposure to toxic chemicals.

Training Records

The district is required to maintain records of employee training for at least 30 years. All training attended, both "in-district" and "external," must be documented and included in employee training records. Attendance will be recorded at "in-district" training. Employees are required to submit copies of certificates of attendance or completion from external training attended. Training records are to be maintained at the school level and be made available to employees and/or their representatives when requested.

Safety Data Sheets (SDSs)

The district is required to maintain a file of manufacturers' SDSs and make them accessible to employees in the laboratory. If an SDS is not available when a new chemical is received, that chemical should not be used until an SDS is obtained. Copies of SDSs for chemicals in the lab should be maintained outside of the chemical storage area. The main office is the most suitable location for duplicate SDS binders. This duplication, while time-consuming, facilitates more efficient and comprehensive responses in emergency situations.

Exposure Testing Records

Records of exposure assessments will be maintained for at least 30 years, and they will be made available to employees and/or their representatives upon request. Exposure testing procedures and results of that testing will be forwarded to the District Chemical Hygiene Officer, who is responsible for maintaining these records. An accurate record of any measurements taken to monitor employee exposures must be kept, transferred, and made accessible to each employee. Employees will be notified of any monitoring results within 15 working days after receipt of the results, either individually, in writing or by posting the results in an appropriate location that is accessible to employees.

Medical Records

The district requires that records of medical consultations and medical examinations, as well as all reports derived from such consultations and examinations, be maintained for at least 30 years. These records must be accessible to employees and/or their representatives upon request.

Prior Approval

Laboratory employees will be informed of those laboratory procedures and operations that require prior approval from the Chemical Hygiene Officer, so that these activities can be carefully monitored for adherence to the Chemical Hygiene Plan. Request for approval must be made in writing, using the form provided in Appendix B.

Incident Reports

Each incidence of an accident, injury or "near miss" will be reported to the School Chemical Hygiene Officer and the District Chemical Hygiene Officer in writing in accordance with Worker's Compensation rules. If staff or students were witnesses to the accident or injury they will complete the appropriate form found in Appendix C. The district will keep records for 30 years from the time of the occurrence. Near miss reports are very useful in determining what areas require specific attention during the annual required review of procedures.

Chemical Inventory Records

Each school is required to maintain a Chemical lnventory List, which will be updated annually. Copies of the Chemical Inventory List will be kept at the local school, and the originals will be provided to the District Chemical Hygiene Officer. If this recordkeeping requirement is completed via a computer-based inventory program, both the School and District Chemical Hygiene Officers will provide backup copies to be maintained in a separate location.

Waste Disposal Records

The district should maintain records of waste chemicals and products from reactions or processes that are transferred to an authorized and/or certified chemical disposal agent, as well as chemicals that are transported to a new site. These records should conform to requirements of the Environmental Protection Agency and the Department of Transportation, either of which may have jurisdiction over these types of transfers. The records should also conform to state requirements.

Safety Inspections and Recommendations

The district will keep records of safety inspections, including the date of the inspection and the person conducting the inspection. Examples of equipment to be inspected are fire extinguishers, drench showers, eye wash fountains, and fire blankets. The district will maintain records showing dates of needed repairs and regular maintenance for control systems.

The district will keep a record of safety suggestions from employees, including the date the suggestion was submitted, the name of the person submitting the suggestion, the disposition of the suggestion, and the reasoning for the action taken.

LABORATORY SAFETY PROCEDURES

Employee Exposure Protections and Monitoring

If there is reason to believe that exposure levels for a regulated substance have exceeded the action level or permissible exposure limit, the School Chemical Hygiene Officer will immediately take steps to ensure that employee exposure to that substance is measured.

Factors that may raise the possibility of overexposure and therefore warrant an initial measurement of employee exposure include:

- The manner in which the chemical procedures or operations involving the particular substance are conducted.
- The existence of historical monitoring data that shows elevated exposures to the particular substance for similar operations.
- The use of a procedure involving significant quantities or that is performed frequently or over an extended period of time.
- There is reason to believe that an exposure limit may be exceeded.
- Signs or symptoms of exposure (e.g., skin or eye irritation, shortness of breath, nausea, or headache) that are experienced by employees. (Some of these symptoms are very general and can be due to many other causes, including emotional stress or hysteria.)

If the initial exposure determination described above indicates employee exposure over the action level for a particular substance, the district will immediately comply with the exposure-monitoring requirements for that substance.

Laboratory Facilities

The type and scale of work conducted in a laboratory must be appropriate to the physical facilities available and to the quality of the ventilation system. A laboratory should include, where appropriate:

- An adequate general ventilation system with air intakes and exhausts located so as to avoid intake of contaminated air and vent lab air directly to the exterior of the building.
- On-demand ventilated stockrooms and storerooms that vent air directly outside.
- Proper chemical storage for specific hazardous materials such as flammables, corrosives, carcinogens, and highly toxic chemicals, so far as they are likely used.
- Adequate laboratory hoods and sinks.
- Emergency equipment, including proper fire extinguishers, spill kits, alarms, access to a telephone with an outside line, eyewash, safety shower, and fire blanket
- First aid equipment, including first aid kits.
- Arrangements for proper waste storage and disposal.

Laboratory Ventilation

Laboratory fume hoods are not meant for either storage or disposal of chemicals. If a hood must be used for storage in order to provide adequate ventilation for flammable chemicals, for example, it must not be used for laboratory experiments or the transfer of chemicals. In that event, it must be used only for storage.

General laboratory ventilation should not be relied on to protect against exposure to hazardous chemicals. When local exhaust systems such as hoods are used as the primary method of control, a rate of 8-12 room air changes per hour is the accepted standard. Laboratory airflow should not be turbulent and should flow continuously throughout the laboratory.

A laboratory hood with a minimum of 2-3 linear feet of hood space per person should be provided for every two students if they spend most of their time working with chemicals. Airflow into and within the hood should not be excessively turbulent. Excessive turbulence may be produced when a hood face velocity exceeds 125 linear feet per minute. Fume hoods should provide adequate airflow at about 60-100 linear feet per minute. The airflow should be measured and recorded regularly by the instructor or School Chemical Hygiene Officer.

Cabinets and rooms that store hazardous chemicals are required to be separately ventilated.

The quality and quantity of ventilation must be evaluated when installed, regularly monitored, and reevaluated whenever ventilation devices are changed or the ventilation system is repaired. Section K, Lab Safety of the most recent edition of the Department of Health and OSPI K-12 Health and Safety Guide will be used to determine the required frequency of inspection.

Medical Consultations and Medical Examinations

Employees who work with hazardous chemicals will be provided with an opportunity to receive medical attention when overexposure to a hazardous chemical is reasonably suspected.

Cause for Consultation or Examination

In relation to the exposure to hazardous chemicals, medical attention will be provided to an employee under the following circumstances:

- Whenever an employee develops signs or symptoms of exposure to a hazardous chemical to which the employee may have been exposed in the laboratory.
- Whenever exposure monitoring reveals an exposure level above the action level or permissible exposure level for an OSHA-regulated substance.
- Whenever an event, such as a spill, leak, or explosion, takes place in a laboratory that may result in exposure to a hazardous substance.

Type of Medical Attention

All medical examinations and consultations should be performed under the direct supervision of a licensed physician and should be provided without cost to the employee, without loss of pay, and at a reasonable time and place. All questions

regarding medical consultations and examinations should be directed to the District Chemical Hygiene Officer, who should arrange for consultation with the Puget Sound Workers' Compensation Trust.

Information for the Physician

The following information should be provided to the physician conducting medical consultations and examinations:

- The identity of hazardous chemicals to which the employee may have been exposed.
- A copy of the material safety data sheet for the chemical.
- A description of the conditions under which the exposure occurred, including quantitative exposure data.
- A description of the signs and symptoms of exposure that the employee is experiencing.

Physician's Report

A written opinion from the examining physician for any consultations or examinations performed under this standard should include any recommendation for further medical attention, the results of the medical examination and any associated tests, and any medical condition revealed during the examination that might compromise employee safety during, or as a result of, exposure to hazardous chemicals found in the workplace, and a statement that the employee has been informed by the physician of the results of the consultation or examination and any medical condition that may require further examination or treatment. The written opinion should not reveal specific diagnoses unrelated to occupational exposure, except as noted above.

Chemical Purchase and Procurement

The purchase of chemicals will be guided by the maxim that less is better. The lower the chemical inventory, the fewer the problems associated with storage and the less likely accidents or exposures will occur. Quantities in excess of instruction needs will result in the school and/or the district incurring excessive costs to dispose of outdated or surplus chemicals.

- Chemicals will be ordered in quantities that are likely to be consumed in two years or less.
- Chemicals will be purchased only when needed for specific experiments or research projects and only in the quantity sufficient for the declared use.
- A chemical will not be accepted or used without being accompanied by the material safety data sheet.
- The container will be marked with the date at the time it is received and the date it is opened.
- Chemicals will not be accepted if the original container has been broken, opened, or has been compromised in some other way.

- The Chemical Inventory List will be updated each time a chemical is received.
- Employees will not accept donated chemicals.

Storage and Distribution

- All chemicals shall be in tightly closed, sturdy, and appropriate containers.
- If the chemical has been transferred to a secondary container, the new container will be appropriately labeled, including all of the hazard information. Specifications for labeling follow in Section 6.8.
- Chemicals should be stored based on the reactive nature of the chemical. Storage patterns should never be based solely on the alphabetical arrangement of chemicals.
- The District Chemical Hygiene Officer is responsible for establishing a classification system for chemical storage. School Chemical Hygiene Officers will implement the system, which will be displayed in storage areas.
- Large containers and containers with reactive chemicals, such as acids and bases, will be stored on lower shelves. No chemical should be stored on top of a storage shelf or cabinet.
- All shelves on which chemicals are stored are required to have a lip of approximately 3/4" or greater in order to prevent bottles from sliding off the shelf.
- Flammable chemicals will be stored in approved storage cans or approved flammable chemical storage cabinets.
- Combustible packaging material will not be stored near flammable chemical storage cabinets.
- Employees will securely lock all storage areas when not in use. Storage and preparation areas are to be accessible only to those persons authorized to use the chemicals and be restricted to personnel who have had proper training in the handling and use of the chemicals. Visitors and students are not permitted to have access to chemical storage areas. Students must be directly supervised by a trained employee in prep areas.
- The use or storage of chemicals classified as acute poisons is discouraged. If stored, these chemicals will be kept in a separate, locked location that has been appropriately labeled.
- Chemicals presenting a fire hazard will be stored in quantities less than 500 ml unless metal safety cans are used or the container is stored in a suitable flammable storage cabinet.
- If approved metal safety cans are used, the spring-loaded closure will not be disabled, the flame-arrestor screen will be kept in place, the arrestor screen will be replaced if punctured or damaged, and the arrestor will never be immersed in the flammable liquid.
- Chemicals may not be distributed to other persons or to other areas of the school without prior approval of the School Chemical Hygiene Officer. Chemicals may not be transferred to another location without the simultaneous transfer of a copy of the appropriate safety data sheet, nor will they be transferred without the

person receiving the chemicals having had appropriate training in their use, storage, and disposal.

Inventory Control

- The Chemical lnventory List must be updated each time a chemical is received or consumed. The School Chemical Hygiene Officer will audit the list for accuracy on an annual basis.
- The Chemical Inventory List will contain the following information about each chemical found in storage:
    - The chemical name.
    - The date purchased.
    - The amount present.
    - The Chemical Abstracts Registry (CAS) number.
    - Risk classification-hazard identification.
    - The examination date for possible disposal.
- Every area in which chemicals are used or stored must also have an up-to-date inventory.
- The School and District Chemical Hygiene Officers will keep a printed copy of the most recent inventory.

Hazard Identification and Labels

- Laboratory chemicals should be properly labeled to identify any hazards associated with them for the employees' information and protection.
- If a chemical is stored in its original bottle, it should have the manufacturer's original label identifying potential hazards, and the date of purchase, the date opened, and the initials of the person who opened the container.
- If a chemical has been transferred to a secondary container, the new container should be appropriately labeled with the chemical name, formula, concentration (if in solution), solvent (if in solution), hazard warnings, and name or initials of the person responsible for the transfer.
- Unlabeled bottles should not be opened, and such materials should be disposed of promptly, as outlined in the section on disposal procedures.

Safety Data Sheets (SDSs)

- The safety data sheets for each chemical used in the laboratory contain recommended limits or OSHA-mandated limits, or both, as guidelines for exposure limits. Typical limits are expressed as threshold limit values (TLVs), permissible exposure limits (PELs), or action levels. When such limits are stated, that limit, along with any other information about the hazardous characteristics of the chemical, should be used to set laboratory guidelines. These laboratory guidelines may be used by the District or School Chemical Hygiene Officer and

the teacher to determine the safety precautions, control measures, and personal protective equipment that apply when working with that toxic chemical.
- Each SDS received with incoming shipments of chemicals should be maintained and made readily available to laboratory employees and students.
- A safety data sheet for each compound on the Chemical Inventory List is required.
- Chemical manufacturers and suppliers are required to supply one copy of a safety data sheet the first time the chemical is purchased by the school or institution.
- All laboratory employees will be trained to read and understand the SDSs.

Waste Disposal

The District and School Chemical Hygiene Officers will ensure that laboratory chemicals are disposed of in compliance with appropriate regulations and in a manner that minimizes damage to human health and the environment.

Every chemical process has the potential to produce hazardous waste. The purchaser or producer of chemicals will consider the waste that will be produced and the cost of waste disposal. The product of a reaction or process only becomes hazardous waste when it is removed from the reaction system. It is called waste, and it is a hazardous material.

A licensed facility must treat hazardous waste. If a process generates hazardous waste, either that waste will be collected for treatment outside the school, or the experimental procedure will be altered to avoid the production of the waste.

The following are specific guidelines for hazardous waste disposal:
- Chemicals will be ordered in quantities that are likely to be consumed in two years or less.
- Potential waste materials are surplus, old, and/or unnecessary chemicals. Every attempt must be made to avoid accumulating such chemicals.
- No flammable, combustible, or water-insolvable material will be poured down the drain.
- Separate waste containers will be provided for heavy metal compounds, chlorinated hydrocarbons, and non-chlorinated hydrocarbons. Separating waste in this manner will make disposal less costly.
- Acids and bases may be neutralized before disposal down the drain.
- Hazardous waste will never be placed in the common solid trash container(s).
- Waste chemicals will be stored in appropriately labeled containers inside secondary containment.
- The products of projects, experiments, or other chemical procedures will be recycled and/or decontaminated whenever possible.
- All waste containers will have an up-to-date log of the material in them. Each entry for an addition to the container will be dated and initialed by the instructor or person who puts the waste in the container. The entry will provide the correct chemical name and amount of chemical added.

- For financial reasons, a large container of a given waste will be used instead of several small containers of the same material when feasible and safe.
- Waste materials will not be allowed to accumulate in laboratories or preparation rooms. The sealed containers will be removed to the designated waste storage location. There are regulatory limits depending on quantity that need to be verified with local officials.
- Waste materials will be identified using a chemical identification form and/or label, ensuring sufficient information is available for their safe transportation, treatment, storage, and disposal.
- The disposal of hazardous wastes will follow the guidelines established by the appropriate local, state, and federal regulations.

PROCEDURES FOR INSPECTIONS

All employees will be alert to unsafe conditions and should inform the School Chemical Hygiene Officer in writing when an unsafe condition occurs.

Laboratory Equipment

The presence of necessary safety equipment in proper working condition, a list of which is provided in Appendix D, will be verified and maintained in each school and laboratory area at least quarterly by the School Chemical Hygiene Officer. The following general standards will apply:

- Each hood will have a face velocity of 60-100 linear feet per minute.
- Each shower will be capable of supplying a continuous flow of tepid, potable water. (ANSI Standard 2358.1-1990) Showers not meeting this standard will be reported to the Facilities Department for repair or removal.
- Every eyewash station will be capable of supplying a continuous, gentle flow of aerated, tepid, potable water to both eyes. (ANSI Standard 2358.1-1990) Eye wash stations not meeting this standard will be reported to the Facilities Department for repair or removal.
- Each fire extinguisher will be fully charged and must have a valid annual inspection tag attached.
- Every goggle sanitizer will have its UV bulb and timer operating properly.
- Equipment will be tagged following the inspection, showing the date, inspector, and results.

The School Chemical Hygiene Officer will maintain written records of all inspections and the records will be made available to employees upon request.

Safety Inspections

Safety inspections of the laboratory will be conducted at least twice each year. The School Chemical Hygiene Officer will keep inspection records. A form for conducting

these inspections is shown in Appendix F. These general inspections will cover all of the emergency equipment identified above and will also ensure the following:

- All gas cylinders are firmly secured.
- Chemicals are not being stored in hoods in which experiments are performed.
- Egress routes are not obstructed.
- Chemicals are not stored on top of cabinets or on shelves that do not have lips.
- Electrical cords are in good condition.
- Rubber hoses are not cracked and are otherwise in good condition.
- Other items will be listed on the "safety audit or inspection" sheet.

SPECIFIC EXPOSURE CONTROL MEASURES

This section addresses criteria that would invoke the use of specific exposure control measures, which are more stringent than those procedures specified as standard operating procedures or general laboratory safety rules. These measures are designed to reduce the exposure of instructors, aides, students, and other employees to especially hazardous chemicals. Employees will read and understand these practices before commencing a procedure using one or more of these chemicals.

Toxic Chemicals

The SDSs and labels for many of the chemicals used in the laboratory recommend specific limits for exposure. Other limitations may be specified by OSHA-mandated limits. Typical limits are threshold limit values (TLVs), permissible exposure limits (PELs), and action levels. When such limits are stated, they will be used to assist the Chemical Hygiene Officer(s) and the teacher in determining the safety precautions, control measures, and safety apparel.

When a TLV or PEL value is less than 50 PPM or Img/m3 or lower, the user will only use it in an operating fume hood, glove box, vacuum line, or other device equipped with appropriate traps. If none are available, no work will be performed using that chemical.

If a TLV, PEL, or comparable value is not available, no work should be performed using that chemical.

Whenever laboratory handling of toxic substances with moderate or greater vapor pressures is likely to exceed air concentration limits, work with such liquids and solids should be conducted in a fume hood, glove box, vacuum line, or similar device equipped with appropriate traps. If none are available, no work will be performed using that chemical.

Use of most toxic chemicals with low TLV's, PEL's or action levels is considered high risk for secondary school lab instruction.

Flammable Chemicals

In general, the flammability of a chemical is determined by its flash point, the lowest temperature at which an ignition source can cause the chemical to ignite momentarily under certain controlled conditions.

Chemicals with a flash point below 200°F (93.3°C) should be considered "fire-hazard chemicals." Any chemical whose SDS or label states "Flammable" is in this category.

OSHA standards and the National Fire Protection Association (NFPA) guidelines or local fire regulations should be consulted on the proper use of flammable chemicals in the laboratory. Specific references are found in Appendix B.

Fire-hazard chemicals in excess of 500 ml should be stored in a flammable solvent storage area, safety cans, or in storage cabinets designed for flammable materials.

Reactive Chemicals

Reactivity information may be given in manufacturers' SDSs and on labels. The most complete and reliable reference on chemical reactivity is the current edition of Bretherick's Handbook of Reactive Chemical Hazards, edited by P.G. Urben, published by Butterworths. Other useful references are cited in Appendix G.

A reactive chemical is one that:

- Is described as such on the label, in the SDS, or by Bretherick.
- Is ranked by the NFPA as 3 or 4 for reactivity.
- Is identified by the Department of Transportation (DOT) as an oxidizer, an organic peroxide, or an explosive (Class A, B, or C).
- Fits the Environmental Protection Agency (EPA) definition of reactive in 40 CFR 261.23.
- Is known or found to be reactive with other substances.

Reactive chemicals must be handled with all proper safety precautions, including segregation in storage and prohibition of mixing even small quantities with other chemicals without prior approval and appropriate personal protection and precautions.

The use of the most reactive chemicals is considered high risk for secondary school lab instruction.

Corrosive Chemicals and Contact-Hazard Chemicals

Corrosives, allergen, and sensitizer information is provided in manufacturers' SDSs and on labels. Other guidelines on which chemicals are determined to be corrosive can be found in the publications cited in Appendix G.

A corrosive chemical is one that:

- Fits the OSHA definition of corrosive in 29 CFR 1910.1450 or 29 CFR 1910.1200.
- Fits the EPA definition of corrosive in 40 CFR 262.22 (has a pH greater than 12 or less than 2.5).
- Is known to be reactive to living tissue, causing visible destruction or irreversible alterations of tissue at the site of contact.

A contact-hazard chemical is an allergen or sensitizer that:

- Is so identified or described in the SDS or on the label.
- Is so identified or described in medical or industrial hygiene literature.
- Is known to be an allergen or sensitizer.

Corrosive and contact-hazard chemicals will be handled with all proper safety precautions, including wearing safety goggles, gloves tested for the absence of pinholes and known to be resistant to permeation or penetration by the chemical, and a laboratory apron or laboratory coat.

The use of the most corrosive chemicals at concentrations above 1 m is considered to be high risk for secondary school lab instruction.

Reproductive Toxins

A reproductive toxin is a compound that:

- Is described as such in the applicable SDS or label.
- Is identified as such by the Oak Ridge Toxicology Information Resource Center (TIRC), (615) 576-1746.

No reproductive toxins will be used or stored in school laboratories without written authorization from the District Chemical Hygiene Officer.

If such chemicals are used, they should be handled only in a hood and when satisfactory performance of the hood has been confirmed. Use gloves and wear protective apparel aids in the avoidance of skin contact. Persons using such substances should always wash their hands and arms immediately after working with these materials. Unbreakable containers of these substances should be stored in a well-ventilated area and will be labeled properly.

Select Carcinogens

All work with these substances should be conducted in a Designated Area, such as a fume hood, glove box, or portion of a laboratory designated for the use of chronically toxic substances. Such a Designated Area will be clearly marked with a warning and restricted access signs.

Any procedure that may generate aerosols or vapors will be performed in a hood whose performance has been verified as satisfactory.

Use gloves and other protective equipment to avoid skin contact. Any protective clothing should be removed before leaving the Designated Area and placed in a labeled container. Hands, arms, face, and neck should be washed after working with these materials.

Select carcinogens must be stored in unbreakable containers in a ventilated area with controlled access. All containers should be labeled with the substance's identity and hazard. Immediately upon completion of the project, all unused reproductive toxins should be disposed of following standard hazardous waste disposal procedures.

No select carcinogens are allowed in school laboratories without written authorization from the District Chemical Hygiene Officer.

The storage of biological specimens in formaldehyde is no longer considered appropriate for secondary school lab instruction.

Exposure Potential

The routes of exposure to chemicals are inhalation, ingestion, contact with skin or eyes, or injection.

Chemical vapors, aerosols, gases, or dust inhaled through the mucous membranes of the nose, mouth, throat, and lungs can produce poisoning. The degree of injury resulting from exposure to these chemicals depends on the toxicity of the material, its solubility in tissue fluids, its concentration, and the duration of exposure.

Ingestion is extremely dangerous. The relative acute toxicity can be evaluated by comparing the LD50, which is defined as the quantity of chemicals that will cause the death of 50% of the test animals when ingested. Many chemicals will directly damage the tissue of the mouth, throat, nose, lungs, and gastrointestinal tract.

Contact with skin and eyes can lead to local irritation and significant chemical injury. Many chemicals can be absorbed through the skin and may cause systemic poisoning. Alkaline materials, phenols, and strong acids can cause permanent loss of vision upon contact with the eye.

Chemicals can be injected through mechanical injection from glass or other materials contaminated with chemicals.

TRAINING OPPORTUNITIES

The district will provide training opportunities for all employees. Development, delivery, and verification of training for employees are the responsibility of the District and School Chemical Hygiene Officers.

These training opportunities will include the transfer of information about the hazards of chemicals present in the laboratory and about sources of information. In particular, the training program will cover information found in the Laboratory Standard, manufacturers' safety data sheets, this Chemical Hygiene Plan, as well as the expected responsibilities of the district and the employee.

Staff will receive training on the potential chemical hazards in their work areas and on appropriate sections of the Chemical Hygiene Plan. This training will be provided to all employees who actually work in the laboratory as well as to other employees whose assignments may require them to enter a laboratory where exposure to hazardous chemicals might occur. Employees who are responsible for receiving and handling shipments of new chemicals or chemical wastes must also be informed of the potential hazards and appropriate protective measures for chemicals they may receive.

Employees will receive information and training at the time of their initial assignment to a laboratory and before assignments involving new exposure situations. Opportunities to refresh their working knowledge will be provided at least once a year. Laboratory personnel training should be documented and made a part of the permanent record.

Information Program

Laboratory employees will be informed of at least the following information:

- The contents of appropriate governing standards shown in Appendix A.
- The location and availability of the Chemical Hygiene Plan.
- The location and availability of known reference materials on the hazards, safe handling, storage, and disposal of hazardous chemicals found in the laboratory.
- The use and location of safety data sheets.

Employee Training Program

Laboratory employees should be trained on the applicable details of the Chemical Hygiene Plan, including a review of the general rules for laboratory safety. The training program should describe appropriate sections of the standard operating procedures, particularly those procedures that require prior approval of the Chemical Hygiene Officer. Employees should be informed as to the responsibilities of the School Chemical Hygiene Officer responsible for the laboratory in which they work. Emergency procedures adopted by the school district, including response to spills, fires, explosions, evacuation, and decontamination, should be described. Employees should be trained in measures they may take to protect themselves from exposure to hazardous chemicals, including the location and proper use of protective apparel and emergency equipment. In addition, the training must also include inventory procedures to be followed, proper storage and ordering rules, and district hazardous waste disposal procedures.

Training of Students

The district requires that instruction in laboratory safety practices be provided to all students involved in laboratory studies. Such training must be appropriate to their level of chemical handling and potential exposure to hazardous chemicals. The extent of training should be based on the grade level, course of study, laboratory facility, and the Chemical Hygiene Plan. The education of students is particularly important because they are near the beginning of their experience with science, chemicals, and chemical safety. Instruction in safety will include the importance of the label and the SDS as important reference sources. As appropriate, the student will also be introduced to other sources of chemical safety information.

EMERGENCY PREVENTION AND RESPONSE

Standard Emergency Procedures

Emergency procedures will be specific response actions for a failure in the ventilation systems, evacuation, fire and spill response, or the failure of other procedures to limit exposure of employees to hazardous chemicals. Once emergency procedures are established, drills will be conducted, and the procedures will be posted in classrooms and labs. These procedures will include the routes of egress from the laboratory, procedures by which to notify appropriate individuals and a method of accounting for staff and students after evacuation. Each classroom and lab must post instructions on how to call for emergency services by calling the office or 9-1-1. Staff and students will not re-enter the building until emergency response authorities (Fire Department) direct them to do so.

Specific Emergency Response Procedures

When helping another person, employees should evaluate the potential danger to themselves before taking action. Do not move any injured persons unless they are in immediate danger from chemical exposure or fire. Call the main office or 9-1-1 if necessary and report the nature and location of the emergency. The School Chemical Hygiene Officer must be notified as soon as possible. The employee should follow the facility's emergency response procedures. These procedures have been established, documented, and practiced.

First Aid

Suitable first-aid equipment should be available in the laboratory area, including a blanket, a general first-aid kit, and small bandages for minor cuts and abrasions. The school should have personnel trained in first aid available during working hours to render assistance until medical help can be obtained. Personal injury beyond the purely superficial requires professional medical treatment. Additional information may be obtained from the district Health Services Director or the Red Cross. References are in Appendix G.

Emergency Equipment

The School and District Chemical Hygiene Officers should ensure that adequate emergency equipment is available in the laboratory and inspected periodically to ensure that it is functioning properly. All personnel should be properly trained in the use of each item. It is recommended that students also be trained to use the fire blanket, eye wash fountain, safety drench shower, and telephone for safety purposes.

Equipment items that should be available in the laboratory include:

- Eye wash fountain.
- Fire extinguisher of an appropriate type.
- Safety drench shower.
- Telephone, with access to an outside line, for emergency response.
- Fire blanket.
- Identification signs.

Refer to the Safety Inspection Report in Annex A.

Fire Prevention

The best way to fight a fire is to prevent it. Proper housekeeping and thoughtful reflection about what is being done can prevent fires or considerably reduce their severity. This includes the prompt removal of waste, separation of flammable liquids from combustible material, storage of only limited quantities of flammable material, and maintenance of unobstructed aisles and exits.

Dealing with a Fire

In preparation for dealing with a fire, a copy of the current Chemical Inventory List should be available outside the work area. Laboratories should be posted with the National Fire Protection Association (NFPA) diamond, which provides much emergency information. The information on the NFPA warning must be current. Since fires involving laboratory chemicals increase the possibility of explosions, special care should be taken to keep fire or excessive heat from volatile solvents, compressed gas cylinders, reactive metals, and explosive compounds.

If a fire occurs, the following actions should be followed, depending on its severity:

- A fire contained in a small vessel should be suffocated by covering the vessel. The vessel should not be picked up nor covered with dry towels or cloths.
- Nearby flammable materials should be removed to avoid the spread of the fire.
- If a fire burns over a larger area, all persons should evacuate the area.
- Only trained people should use the fire extinguisher, and only from a position from which escape is possible.
- Stairs, not elevators, should be used to leave the area of the fire.
- The fire alarm should be activated, and the main office and 9-1-1 are called.

- Firefighters should be informed of what chemicals are directly involved, and a copy of the Chemical Inventory List must be available if requested.

All extinguishers that were used should be recharged or replaced with full extinguishers.

Personal Injuries Involving Fires

Persons whose clothing is ablaze should STOP-DROP-and-ROLL. If a safety shower is immediately available, the individual may be doused with water. Once the fire is out, the individual should be wrapped to avoid shock and exposure. The individual should be kept warm, and medical attention must be promptly sought. If a fire blanket is available, it should be used to smother the fire. The person should not be wrapped to avoid the chimney effect with the fire blanket.

Chemical Spills on Personnel

For spills covering small amounts of skin, the area will be washed immediately with flowing water for 15 minutes. To facilitate cleaning, jewelry should be removed. Medical attention will be obtained by calling the main office and 9-1-1. The SDS should be consulted to determine if any delayed effects should be expected. Depending on the information from the SDS, follow-up medical attention may be necessary.

For larger spills, the same procedures apply, except that it may be appropriate to use the safety drench shower to ensure thorough and complete washing. It may be necessary to use a shower away from the immediate spill area due to potential airborne or contact exposure to others.

Clothing, shoes, and jewelry should be removed as quickly as possible to facilitate washing. The safety drench shower should be used for 15 minutes or until an EMT arrives, and any affected skin should be thoroughly flooded for 15 minutes. Washing should be resumed if the pain continues. No creams, salves, or lotions should be placed on the affected area, and medical attention should be sought as soon as possible.

Special care should be taken to prevent chemicals from entering the eyes. Contaminated clothes should be washed separately from other personal clothing.

Splashes in the Eyes

Whenever potentially harmful chemicals enter the eye(s), 9-1-1 should be called, and the eye(s) should be immediately flushed with tempered potable water from a gently flowing source for at least 15 minutes or until an EMT arrives. The eyelids should be held away from the eyeball while the eyeball is moved up, down, and sideways to wash behind the eyelid(s). Assistance is absolutely necessary at this time. If contact lenses are worn, they should be removed as soon as possible to allow complete rinsing of the eye(s).

Procedures need to include how to contain water from showers in the absence of direct drainage at the shower and eyewash station.

Dealing with Medical Help

Medical personnel will be provided with information about the chemical involved in the spill and the circumstances of the spill. Whenever possible, a safety data sheet will be provided to the medical person who is providing assistance.

Other Accidents Involving Personal Injury

Anyone overcome with smoke or fumes will be removed to uncontaminated air and treated for shock. Potential rescuers should evaluate the possibility of harm to themselves before entering or remaining in a toxic environment.

If hazardous chemicals are ingested, the first aid treatment shown on the label or in the safety data sheet should be undertaken.

If an injured person is not breathing, the rescuer should initiate CPR. For training opportunities, consult the Everett Public Schools Human Resources Department at 425.385.4100 or the local Red Cross at 425.252.4103.

Compressing the wound with a clean cloth or other appropriate compress should control bleeding. However, because of the possibility of infection with one or more bloodborne pathogens, personal protection should be used. The injury should be elevated above the level of the heart. After bleeding is controlled, the injured person should be covered to avoid shock. Medical attention must be summoned as soon as possible.

If a person is in contact with a live electrical circuit, the power should be shut off at the most convenient switch or breaker panel. The person should not be touched until the power has been disconnected.

General Chemical Spills

School Chemical Hygiene Officers, supported by the District Chemical Hygiene Officer, will develop specific response procedures and ensure that spill response resources are available. Spill response procedures will be posted in classrooms, labs, and storage areas. Containment of spilled chemicals minimizes the danger and facilitates clean up. Absorbent materials must be included in spill response kits. After the spill has been contained, it must be cleaned up with appropriate tools, including commercial spill control kits. If the spilled material is a hazardous chemical, that chemical and all the cleanup material must be treated as chemical waste and properly disposed of.

Accident Reports

All accidents and near accidents should be carefully investigated. The results of that investigation and recommendations for the prevention of similar occurrences should be forwarded to the Principal and the District Chemical Hygiene Officer. Accident reports should be kept on file, as indicated in the record-keeping section of this document.

SPILL RESPONSE PROCEDURES

Personal Injury

In the event of a spill, the first response should be to determine if anyone has come in contact with the spilled chemical. All persons who have been splashed should be assisted to the deluge shower. A minimum 15-minute rinse is indicated. Remember, if clothing is splashed, it must all be removed since the rinse is designed to remove chemicals only from the skin. Any suggestion of splash in the eyes requires a 15-minute rinse at the eyewash. Hold the eyelids open and allow the water to rinse the eye surface. If contact lenses are worn, they should be removed as soon as possible to allow a complete rinsing of the eye.

Identification of the Spill

If the spill appears to be organic solvents, ammonia, or other volatile reagents, evacuate the area as soon as possible. Initiate fire/exit drill procedures and ventilate the area. Be aware of the possibility of sparks from electrical switches, open flames, or other sources of ignition. The School Chemical Hygiene Officer will be contacted to determine if the size and type of spill will require outside assistance prior to beginning clean-up activities.

Containment of the Spill

If there is no immediate danger to personnel, spill pillows, towels, rolls, or other devices that will keep the spill from spreading should be used to contain it.

If practical, coarse vermiculite, kitty litter, or another absorbent material may be used to form a dam to contain the spill.

Another inexpensive absorbent can be made from a mixture of sand and sodium carbonate. This is particularly effective with corrosives because the soda neutralizes acids, and the sand improves the footing and minimizes the possibility of slipping and falling into the spill. Sodium bicarbonate is also effective in neutralizing caustic spills.

Cleanup

If hazardous vapors are suspected, the building must be evacuated and re-entry prevented. Only emergency response (Fire) may authorize re-entry. Cleanup can proceed once the area is vented and the spill is contained. Mop, shovels, scoops, and buckets can be used as usual. Once the spill is thoroughly absorbed, the waste should be

collected in heavy plastic bags, clearly labeled, and isolated for disposal. After all hazardous material has been removed, cleanup can be completed using standard custodial cleaning procedures.

Protective Equipment

Minimum protective equipment for the cleanup process includes chemical splash goggles, face shields, gloves appropriate to the chemical, coveralls, aprons or lab coats, and rubber boots or plastic over-the-shoe protectors.

No one who is not trained in hazardous waste operations and emergency response ("HAZWOPER") should ever undertake the cleanup of a major spill. No one employee will work on clean-up activities alone. The buddy system is essential to protect the workers. Further, the cleanup team may not begin work prior to consulting with the School Chemical Hygiene Officer or other appropriate emergency response authorities.

Training Requirements

The District Chemical Hygiene Officer will facilitate employee spill response training, including a determination of the need for both school clean-up teams and an additional District Team.

To undertake the cleanup of a major or extremely hazardous spill, all responders must have Hazardous Waste Operations and Emergency Response (HAZWOPER) training. This training is available at various levels:

First Responder at the Awareness Level (Level 1)

The "First Responder at the Awareness Level" must understand the nature of hazardous materials and the associated risks, recognize the presence of hazardous materials in an emergency, and understand the first responder's role in the school's emergency response plan, which is to determine risk, assist injured, evacuate, and call for assistance.

First Responder at the Operating Level (Level 2)

The "First Responder at the Operating Level" will know the basic hazard and risk assessment techniques and terms, will select and use proper personal protective equipment, will perform basic control, containment, and/or confinement operations using the capabilities available within the school, will implement basic decontamination procedures, and will understand the relevant standard operating procedures and termination procedures. The School Chemical Hygiene Officer will serve as the on-scene incident commander for a second-level response, and a trained cleanup team will carry out the cleanup. The School Chemical Hygiene Officer will determine if additional assistance is required.

HAZWOPER Third and Fourth Level Response

"HAZWOPER Third and Fourth Level Response" requires a trained HAZMAT team, i.e., the Fire Department.

Disposal

If the spilled material was a hazardous chemical, all of the materials involved in the cleanup will usually be considered hazardous waste and must be disposed of as such.

In those few instances in which the cleanup transformed the material to a non-hazardous form, the cleanup residue may be disposed of in a local sanitary landfill. Check with local landfill authorities before attempting to do this.

Recordkeeping

The School and District Chemical Hygiene Officers, will collect complete records of the incident, including injuries, witnesses, response and cleanup procedures, waste disposal, additional assistance, and final evaluation. Documentation will be provided to the Risk Management Office for further action and record retention.

Reminder: All spills, accidents, and near misses will be reported to the School and District Chemical Hygiene Officers.

LABORATORY SAFETY EQUIPMENT RECOMMENDATIONS

Personal Clothing and Equipment	Recommendations
Aprons, rubber, or plastic	Extend to or below the knees.
Gloves	The material from which the glove is made must be carefully chosen so that the glove is not permeable to the liquids or vapors anticipated for the experiment.
Chemical splash goggles	Meet ANSI Standard Z87.1 for chemical splashproof goggles. Indirect ventilation.
Face shield	Used with goggles.
Laboratory coat	Tyvek or Dacron and cotton or cotton; has long sleeves; has Velcro or snap fasteners. Extends to or below the knees.
Drench shower	Ceiling and wall-mounted showers operated by chain pull valves. Required to deliver tepid, potable water for at least 15 minutes without the need to hold the valve.
Fire blanket, wool wrap	Most useful for keeping a victim warm while waiting for medical attention. A fire blanket should be available, but not on a roller. The purpose of the fire blanket is to cover the victim, not encircle. If wrapped around a burning victim, may cause additional burns to the neck and face due to the 'chimney effect'.
Fire extinguishers	Should be suitable for Class A, B & C fires.
First aid kit	Any good, general-purpose first aid kit is suitable.

Flammable storage cabinet	May be made of wood or metal. Should be vented directly to the outside. Check local fire Codes. Self-closing door is required.
Fume Hood	Should have a face velocity of 60-100 linear feet per minute. Should be vented to the outside. May have a vertical or horizontal sash. Should be kept clean and uncluttered.
Safety cans	Some occasions require the storage of volatile, flammable, or combustible solvents in safety cans. Each can should have a flame arrestor in good working order. Check Local fire codes and NFPA standards 30 and 45.
Signs	Signs are required to designate the location of safety equipment, means of ingress and egress, etc. Signs will be chosen to conform with state guidelines and recommendations.
Smoke alarm	Check local fire codes.
Spills – acid	Best treated with sodium bicarbonate, which may be mixed with kitty litter and/or sand.
Spills – base	Best treated with sodium bisulfate, which may be mixed with kitty litter and/or sand.
Spills – halogen	Best treated with sodium thrisulfate, which may be mixed with kitty litter and/or sand.
Spills protection in the laboratory	A general-purpose adsorbent, such as a mixture of kitty litter, sand, and vermiculite is suitable for containing many chemical spills.

OUTDOOR HEAT EXPOSURE PREVENTION PLAN

Purpose: The purpose of this program is to ensure compliance with the Outdoor Heat Exposure rule, WAC 296-62-095, for employees who are exposed to temperatures at or above Table 1 of the regulation. Employees with only incidental exposure, as defined in the rule, are not covered.

Scope: The following requirements are only in effect from May through September of each year for affected job categories or positions (see below).

Employees Covered Under This Rule: Anyone working outdoors more than 15 minutes in any 60-minute period in temperatures:

(Table 1 - Action Levels)

As low as 52°F	when wearing clothing that is non-breathable or provides a vapor barrier like rain gear, chemical resistant suits, or Level A suits.
Starting at 77°F	when wearing double layers woven clothing like sweatshirts, coveralls, and jackets on top of other clothes.
At 89°F	when wearing any other type of clothing like typical shirts and pants.
At or above 100°F	all employers must respond to the extreme heat by providing shade or another sufficient means for employees to cool down and ensuring workers have a paid cool-down rest period of at least 10 minutes every two hours.

Job Categories with greater than incidental exposure:

- Outdoor trades
- Coaches
- Grounds
- Outdoor paraeducators

Training

Each April, employees working in the positions listed above will be provided with safety training on the dangers of outdoor heat exposure, the steps taken to protect them, and actions they must follow to prevent heat-related illness, training on heat procedures, cool-down rest breaks, and ways to cool down. The district training course is located in Vector Solutions under “Heat Illness Prevention.”

Additional training will be scheduled and provided for those who missed the session or when a new employee is hired.

Hydration

Employees should drink small amounts of water often throughout the day to stay hydrated. Don't wait to be thirsty to drink water, and don't drink it all at once. In fact, it's best to start drinking water before work. Additional water breaks are allowed during hot days.

Sports drinks low in sugar are acceptable. Avoid drinks with caffeine and high sugar content, like sodas, because they won't hydrate you.

Employees should ensure they have enough water on hand to allow for a quart of water each hour. Additional water is accessible to employees at all district sites through water-filling stations. Employees should not share cups, bottles, etc. with others. Employees should not drink water from non-potable sources (i.e., lakes, rivers, or hoses not labeled as safe for drinking).

Responding to reports or observations of heat-related illness

If an employee or co-worker is experiencing any signs or symptoms of heat-related illness, inform a supervisor or someone nearby and take immediate action to ensure the individual doesn't get dangerously worse.

1. Time is critical. Move the worker away from the hot area to a cool, shaded area. Quick action increases the chances of a full recovery.

2. Let the worker rest and drink cool water.

3. Never leave an employee who is experiencing heat-related problems alone; they could get worse. For lone workers, the supervisor should stay on the line to monitor their recovery and the need to contact emergency services.

4. If the employee does not respond quickly, call 911 or activate the Rave Panic Button "Medical" tab. The employee should stay with the affected employee until emergency medical resources are on the scene. In some cases, they may have to guide them to the employee's location.

If the employee receives medical attention, they must get written authorization from their medical provider to return to work and submit it to their supervisor. The authorization must also include any limitations or work restrictions.

Annex A
SAFETY EQUIPMENT INSPECTION REPORT

Facility Inspected: _____ Date: _____

LAB AREA	YES	NO
A. Evacuation Plan Posted?		
B. General Housekeeping **(Comments):**		
1. Equipment will be tagged following the inspection, showing the date, inspection, and results.		
2. General Housekeeping Satisfactory?		
C. Storage Area (**Comments):**		
1. Flammable storage cabinet vented to outside?		
2. General shelving incorporates ¾ inch lip to prevent spillage in the event of an earthquake or other shaking event.		
3. No Chemicals stored above eye level (except those in a secure cabinet with a door)?		
4. Shelves secured to walls?		
5. Storages Areas Satisfactory?		
D. Fume hoods **(Comments):**		
1. Vertical or horizontal sash?		
2. Clean and uncluttered?		
3. Face velocity of 60-100 LFPM?		
4. Vented to facility exterior and chemicals not stored in hood?		
5. Date of last inspection:		
6. Fume hoods Satisfactory?		
E. Moveable Furniture **(Comments):**		
1. Moveable Furniture Satisfactory?		

SAFETY EQUIPMENT AND PERSONAL PROTECTION	YES	NO

A. Chemical Splash Goggles **(Comments):**		
1. Every goggle sanitizer UV bulb and timer operating properly?		
2. Chemical Splash Goggles Satisfactory?		
B. Face Shields (Comments):		
1. Face Shields Satisfactory?		
C. Protective Clothing (Aprons, Lab Coats, Gloves, Etc.) **(Comments):**		
1. Do aprons (rubber or plastic) extend to or below the knees for lab students and instructors?		
2. Adequate number of clean aprons available for all who need them?		
3. Are laboratory coats made of Tyvek or Dacron and cotton or cotton with long sleeves and Velcro or snap fasteners that extend to or below the knees?		
4. Protective Clothing (Aprons, Lab Coats, Gloves, Etc.) Satisfactory?		
D. Fire Extinguishers **(Comments):**		
List all Extinguishers: Type Quantity Date of Last Inspection		
1. Suitable for Class A, B, and C fires?		
2. All staff trained in use?		

3. Each fire extinguisher fully charges?		
4. Each extinguisher checked and shaken monthly?		
5. Fire Extinguishers Satisfactory?		
E. Signage **(Comments):**		
1. Signs are useful for designating the location of safety equipment, means of ingress and egress, etc.?		
2. Signs in conformity with state guidelines and recommendations?		
3. Signage Satisfactory:		
F. Eye Wash Station(s) **(Comments):**		
1. Delivers tepid, potable water to both eyes?		
2. Provides steady, gentle flow for a minimum of 15 minutes without need to hold valve?		
3. Tested monthy to assure proper working conditions?		
4. Date last tested:		
5. Path to station is free of obstruction?		
6. Eye Wash Station(s) Satisfactory?		
G. Safety shower **(Comments):**		
1. Mounted on wall or ceiling and operated by chain pull valve?		
2. Delivers tepid, potable water for at least 15 minutes without the need to hold the valve?		
3. Tested monthly to assure proper working condition?		
4. Date last tested:		
5. Safety Shower Satisfactory?		
H. Fire Blanket(s) **(Comments):**		

1. Wool blanket in good, clean condition?		
2. Storage allows for unobstructed access to blanket?		
I. First Aid Kit(s) **(Comments):**		
1. Kits clearly marked and easily accessible?		
2. Kit is in good condition containing general-purpose first aid materials?		
3. First Aid Kit(s) satisfactory?		
UTILITIES		
A. Electrical Outlets Satisfactory?		
B. Cords Satisfactory?		
C. Breaker Box/Master Cut-Off(s) Satisfactory?		
D. Emergency Lighting Satisfactory?		
E. Water and Drains Satisfactory?		
F. Telephone Access/Intercom Satisfactory?		
G. Tagout/Lockout Cards/Cords Satisfactory?		
H. Smoke Alarm(s) Satisfactory?		
CHEMICAL STORAGE		
A. Inventory list posted?		
1. Last Updated:		
B. Safety Data Sheets Posted?		
1. Last Updated:		
C. Compressed Gas Cylinders **(Comments):**		
1. Securely fastened to wall?		
2. Pressure gauges unobstructed and readable?		
3. Properly placarded?		
4. All cylinders used with a correct regulator?		
5. All cylinders fitted with deliver tubes that do not leak and which are tightly fastened to the cylinder?		
6. A cylinder should be considered to be empty when there is still a slight positive pressure.		
7. Compressed Gas Cylinders Satisfactory?		
D. Security **(Comments):**		
1. Security Satisfactory?		
E. Appropriate Organization **(Comments):**		

1. Appropriate Organization Satisfactory?		
F. Labeling **(Comments):**		
1. Labeling Satisfactory?		
G. General housekeeping **(Comments):**		
1. General housekeeping Satisfactory?		
H. Hazardous Waste Storage **(Comments):**		
1. Hazardous Waste Storage Satisfactory?		
I. Laboratory Spill Protection **(Comments):**		
1. Is a general-purpose absorbent, such as a mixture of kitty litter, sand, and vermiculite available and clearly marked for containing chemical spills?		
2. Is sodium bicarbonate available and clearly marked for acid spills?		
3. Is sodium bisulfate (mixed with kitty litter and/or sand) available for base spills?		
4. Is sodium thrisulfate available for halogen spills?		
5. Laboratory Spill Protection Satisfactory?		

Person Performing Inspection:

_____

Signature

_____

Print Name Date

School Chemical Hygiene Officer:

_____

Signature

_____

Print Name Date

Principal:

_____

Signature

_____

Print Name Date

Annex B
RECORD OF CHEMICAL TRAINING

Employee Name: _____District ID # _____

Job Assignment: _____Job Location: _____

The above-named employee has received training, as specified in the applicable Chemical Hygiene Plan, in the following areas:

Training Topic	Date	Location	Trainer's Name/initials
Federal & state chemical hygiene standards	_____	_____	_____
Location/content of the District Chemical Hygiene Plan	_____	_____	_____
Hazards of chemical in the workplace	_____	_____	_____
Proper procedures of requesting authorization to obtain and use chemicals considered too hazardous for general school laboratories	_____	_____	_____
Labeling and storing practices and information to interpret labels	_____	_____	_____
Location and content of SDSs	_____	_____	_____
Location of safety references	_____	_____	_____
Location and proper use of protective apparel and equipment	_____	_____	_____
Appropriate first aid techniques	_____	_____	_____
Procedures for responding to chemical exposures	_____	_____	_____
Procedures for reporting accidents	_____	_____	_____
Detecting presence of release of hazardous chemicals	_____	_____	_____
Proper operation of fire extinguisher	_____	_____	_____

Annex C
Hazardous Assessment for Respirator Selection

1. Identify the airborne contaminant(s):
The safety data sheet (SDS) for each product is an important source of information on airborne contaminants. The SDS identifies the ingredients in each product that have been determined to be a health hazard and the physical and chemical characteristics of the product, such as vapor pressure and flash point.

The physical form of the hazard will also help determine the type of respiratory protection needed.

- Dusts are tiny suspended particles resulting from a mechanical process such as grinding.
- Mists are tiny liquid droplets usually created by spraying operations.
- Fumes are small particles formed by a condensing gas or vapor such as in welding.
- Vapors are substances that evaporate from a liquid or solid.
- Gases are formless fluids that occupy the space in which they are enclosed. Examples include nitrogen and carbon monoxide.
- Smoke is a mixture of suspended particles and gases which are the result of combustion. Smoke can contain toxic contaminants.

2. Determine the concentration level of the contaminant:
Monitoring instruments will give you a precise reading of the airborne concentration level of the contaminant. If testing indicates exposure to an airborne concentration level at or above the Permissible Exposure Level (PEL) established for that substance, respiratory protection must be worn. This testing should be done by an industrial hygienist or other qualified staff.

3. Evaluate the conditions of exposure:
There are many variables that can affect your choice of respiratory protection. Always keep these factors in mind:

- The nature of the task. How long will exposure to each hazard be? Is the work strenuous (which makes breathing more difficult)?
- The characteristics of the work area. Is the work area a confined space and/or poorly ventilated? Will air temperatures be hot or cold? Could more than one contaminant be present?
- The type of work process. Does the way chemicals are combined, heated or applied create an additional or new health hazard? An example of this could be a paint spraying or welding operation.

4. Match the hazard, concentration level and the conditions of exposure to the proper type of respirator:

A wide range of supplied-air and air-purifying respirators are available from various manufacturers. Contact University of Washington, Environmental Health and Safety for help in selecting the proper respirator for your specific work area. The following worksheet and forms can be used for documenting the respirator hazard assessment and selection process.

Respiratory Hazard Assessment worksheet

Department: _____

Worksite: _____

General Description of Job Task: _____

_____

Job Classification(s) _____

Level of physical exertion required to perform job: _____

_____

Respiratory hazard(s) present: _____

_____

_____

OSHA PEL:_____ ACGIH TLV: _____

Is monitoring data available? _____Yes _____No
If yes, attach to this form.

Contaminant concentrations present in the workplace:

Contaminant(s): _____ Concentration:

Contaminant(s): _____ Concentration:

Contaminant(s): _____ Concentration:

Does data indicate levels that exceed applicable limits? _____Yes _____No
Does data indicate IDLH concentrations? _____Yes _____ No

Note: Wherever hazardous exposure(s) cannot be identified or reasonably quantified, the atmosphere must be considered IDLH.

Does data indicate oxygen deficiency (less than 19.5%)? _____Yes _____No

Is the respirator for routine use or emergency use? _____

Additional factors (i.e. temperature and humidity levels, etc.):_____

_____

Communication requirements: _____

_____

Are engineering/ administrative controls feasible? _____Yes _____No

If no, describe reasons: _____

_____

Type of respirator selected: _____ air purifying _____ atmosphere supplying

Style of respirator selected: _____ tight-fitting _____ lose-fitting

Make: _____

Model#_____

Type of canister or cartridge to be used: _____

Cartridge/canister change schedule if applicable _____

_____

Evaluator: _____Date:_____