

CHEMICAL HYGIENE PLAN (CHP)

BACKGROUND: The NPS Chemical Hygiene Plan (CHP) provides a written program developed by the Chemical Hygiene Officer, which sets forth procedures, equipment and personal protective equipment and work practices that are capable of protecting employees from the health hazards presented by laboratory use of hazardous chemicals, within various laboratories belonging to the following departments: Physics, Astronautical & Aeronautical Engineering, and Mechanical engineering. Laboratory use of hazardous chemicals refers to laboratories where relatively small quantities of hazardous chemicals are used on a non-production basis. The NPS CHP shall be made readily available to all employees.

A. GENERAL PRINCIPLES

1. Work practices should be oriented toward minimizing exposure to all chemicals. This should include, but is not limited to:

- a. Plan laboratory sequences to require the least number of chemical handling and mixing operations.
- b. Whenever possible, mix and handle chemicals in a fume hood, otherwise, in a well-ventilated, non-confined space with open windows. Never perform chemical operations in a confined space.
- c. Direct skin contact with all chemicals should be avoided. Utilize appropriate Personal Protective Equipment (PPE) to include as a minimum gloves and eye goggles.
- d. Mix and handle the least amount of chemicals necessary for the operation to be performed.
- e. Keep containers covered and properly stored when not in use. Containers of mixed chemicals should be covered, but not tightly. If a mixture evolves a gas, pressure would be build up in a tightly sealed container, causing it to rupture.
- f. All personnel, prior to working with laboratory chemicals, shall review App. A, Standard Operating Procedures for Working with Chemicals, of this CHP.

2. Avoid underestimation of risks, even for substances, which present no known specific risks. One should always assume that a chemical mixture will be more toxic than its most toxic component, and that all substances of unknown toxicity are toxic.

3. Utilize the maximum available ventilation. Whenever possible, mix and use chemical mixtures under a fume hood, with the door at or below the opening height, which provides 100 FPM, air velocity. Always record in the fume hood logbook the date, type and quantity of chemicals mixed. If use of a fume hood is not possible, mix and use chemicals in a space with open windows. Never mix or use chemicals in a confined space. Attempt to keep chemicals at the lowest possible temperature, by avoiding direct sunlight and warm surfaces. This will reduce the rate of evaporation into the atmosphere.

4. Familiarity and compliance with this CHP is an integral and ongoing aspect of the duties of every professor, student, and employee of the PH, AA, ME Departments engaged in work involving laboratory use of hazardous chemicals. The plan is not a periodic or one-time effort. The provisions of this plan apply equally to academic teaching laboratories, individual's thesis and research activities, and operational use of chemicals.

5. Under no circumstances will Action Levels (AL's) or Permissible Exposure Limits (PELs) established by OSHA or Threshold Limit Values (TLV) established by ACGIH be exceeded. If there is any suspicion that the AL, PEL or TLV is being approached or exceeded, a request for exposure monitoring will be submitted to the NPS Chemical Hygiene Officer (CHO). Results of initial exposure monitoring may dictate the need for periodic exposure monitoring.

6. Environmental Monitoring will be conducted at such times as prescribed by competent authority such as the CHO, Industrial Hygienist, or the Monterey Air Pollution Central District.

B. LABORATORY FACILITIES

1. Laboratories within the PH, AA, ME Departments shall ensure designs of new facilities will be reviewed for compliance with OSHA, NAVOSH, and other applicable standards by the NPS CHO, Public Works, ROICC, and WESTDIV.

2. Chemical laboratories shall ensure:

- a. Appropriate general ventilation is designed with air intakes and exhausts located so as to avoid intake of contaminated air.
- b. Storage facilities are properly constructed and ventilated.
- c. Storage facilities will not have open drains to the sanitary sewer.
- d. Chemical handling facilities will have laboratory hood and sinks available.
- e. Available safety-equipment such as eyewashes and drench showers may be prescribed by competent authority.
- f. Hazardous chemical wastes will be collected and labeled in containers provided by the PH, AA, ME Departments, and turned into the NPS Environmental Coordinator for disposal.
- g. Laboratories are posted with applicable Chemical Hygiene SOP's, emergency egress maps, and spill clean-up SOP's.

3. Maintenance

- a. Facilities will be maintained in a clean and professional manner.
- b. Facilities and equipment will be inspected at intervals prescribed by NAVOSH,

Industrial Hygiene, and NPS OSH office to ensure proper functioning of equipment and facilities.

- c. Operations will be suspended in areas with inoperable safety equipment and facilities.
- d. Work conducted in labs will be appropriate to facilities of lab, as approved by the CHO and Industrial Hygienist, and Laboratory Managers.
- e. If a substantial change in procedures or chemical usage is planned, it will be checked and cleared with the CHO prior to implementation.

C. CHEMICAL PROCUREMENT, DISTRIBUTION, AND STORAGE

- a. Procurement. Prior to initiating an order, local inventories will be checked to ensure that the chemical is not already on hand. Procurement will only be accomplished in accordance with procedures established by NAVPGSCOLINST 5100.2F. No container should be accepted which is not in good condition and properly marked with chemical name and manufacturer's name. An MSDS for each chemical will be on hand prior to receiving the chemical.
- b. Storerooms. Storage areas will have sufficient ventilation to prevent accumulation of fumes. Storage of HAZMAT will be in secure facilities. Incompatible Materials shall be segregated, as violent reactions may occur when the following hazard classes are mixed together:
 - Corrosives + Flammables = Explosion/Fire
 - Corrosives + Poisons = Poison Gas
 - Flammables + Oxidizers = Explosion/Fire
 - Acids + Bases = Corrosive Fumes/Heat
- c. Distribution. When chemicals are hand carried, it should be done in an unbreakable container. Avoid personnel elevators and congested areas.
- d. Laboratory Storage. Amounts kept in the laboratory should be as small as practicable. A six-month supply should be the maximum. Avoid exposure to heat and sunlight. Avoid storage on open bench tops and other areas subject to bumping. On-hand inventories will be maintained current at all times.

D. HOUSEKEEPING, MAINTENANCE, and INSPECTIONS

- a. Cleaning. Floors should be cleaned regularly and kept free of spills and hazardous conditions at all times.
- b. Inspections. Inspections will be conducted quarterly and records maintained for one year. Informal inspection and correction of deficiencies will be an ongoing and continuous process by all personnel.
- c. Maintenance. Facilities and equipment will be maintained in a safe, functional

condition. Inspections of safety equipment such as eyewashes and showers will be performed at weekly intervals.

- d. Passageways. Passageways will not be used to store items. Access to exits, emergency equipment, and control panels must be kept clear.

E. MEDICAL PROGRAM

- a. All employees who work with hazardous chemicals shall have the opportunity to receive medical attention, without costs to the employee under the following circumstances:
 - Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory.
 - Where exposure monitoring reveals an exposure level routinely above the AL or PEL for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements.
 - Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous exposure.
- b. The NPS Fire Department will provide first aid. First aid supplies will not be kept within the laboratories unless approved by the Occupational Safety & Health Manager.

F. PERSONAL PROTECTIVE EQUIPMENT

- a. The following personal protective equipment will be readily available in or near laboratory areas where chemical operations are performed:

- (1) Protective eye goggles
- (2) Protective gloves
- (3) Eyewash and body shower
- (4) Chemical aprons
- (5) Fire extinguisher
- (6) Fire alarm
- (7) Telephone

- b. Respirators. Individuals properly enrolled in the NPS Respirator Program Process NAVPGSCOLINST 5100.2F, p. 1-32, will only use respirators.

G. RECORDS.

- a. Mishaps will be promptly reported to Code 223 in the form and manner prescribed

in NAVPGSCOLINST 5100.2F, p. 1-1 through 1-3.

- b. Chemical inventory lists will be kept in storage locker and kept continuously current. "Quantity on hand" will be updated at the time of addition or usage.
- c. Records of training, orientation, and instruction given will be retained for one year.

H. SIGNS and LABELS

- a. An emergency contact phone list will be posted in each laboratory area.
- b. All containers will be labeled to identify contents in accordance with NAVPGSCOLINST 5100.2F, p. 1-29.
- c. Signs depicting location of other safety facilities such as eyewashes, showers, fire extinguishers, and PPE, shall be posted in each laboratory area.
- d. Refrigerators and freezers will be labeled either "FOOD ONLY" or "NO FOOD".
- e. Post any sign necessary to advise of precautions, procedures, or any other special circumstance to be observed.

I. SPILLS and ACCIDENTS.

- 1. Spills and accidents shall be handled i.a.w. - Appendix B of this CHP.
- 2. All accidents, incidents and near accident/incidents will be reported to the Laboratory Manager and analyzed to determine how to prevent the recurrence of such events. Report all mishaps to Code 223 in accordance with NAVPGSCOLINST 5100.2F, p. 1-1 through 1-3.

J. INFORMATION, TRAINING, and MSDS's

- 1. Employees engaged in the laboratory use of hazardous chemicals shall be provided information at the time of an employee's initial assignment to that work area where hazardous chemicals are present. Employees shall be informed of:
 - a. Contents of 29 CFR 1910.1450, Subpart Z.
 - b. Contents, location & availability of the NPS CHP.
 - c. PEL's for OSHA regulated substances.
 - d. Signs & symptoms associated with exposures to hazardous chemical used in the laboratory.
 - e. Location and availability of known reference materials on the hazardous chemicals found in the laboratory.
- 2. Employees engaged in the laboratory use of hazardous chemicals shall be periodically

trained in:

- a. Applicable details of the NPS CHP.
- b. Physical & health hazards of chemicals in the work area.
- c. Methods & observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the industrial hygienist, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).
- d. The measures employees can take to protect themselves from these hazards including specific procedures the department has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.

3. Manufacturer - specific MSDS will be physically available in each area where chemicals are used. Prior to using any chemicals, laboratory users will read the MSDS for each chemical to be used, paying particular attention to:

- a. Health Hazard Data
- b. Fire and Explosion Hazard Data
- c. Reactivity Data
- d. Spill or Leak Procedures
- e. Precautions to be taken in Handling and Storage - In circumstances where the laboratory user creates a unique chemical mixture, the user shall be responsible for creating a MSDS for the mixture. Blank MSDS formats are available.

K. OTHER SAFETY CONSIDERATIONS:

The above chemical hygiene procedures are solely oriented toward the prevention of toxic exposure, and are by no means all-inclusive laboratory safety procedures. Additionally, all other workplace safety policies are applicable including the following:

1. Electrical Safety
2. Back Injury Prevention
3. Fire Safety
4. Hearing Conservation
5. Mishap Investigation and Reporting
6. Sight Conservation

7. Machine Guarding
8. Gas Free Engineering
9. Machine Sources of Ionization Radiation

L. CHEMICAL HYGIENE RESPONSIBILITIES

1. NPS Superintendent is responsible for everything that happens or fails to happen at NPS including proper functioning of the NPS Chemical Hygiene Plan. Ensures continuing support for the Chemical Hygiene effort by:

- a. Providing sufficient training to subordinate level individuals to enable them to fulfill their responsibilities adequately.
- b. Ensuring that a vigorous program of compliance inspections is conducted on activities utilizing chemicals.
- c. Ensuring that adequate funding is allotted to implementation and operation of the CHP.

2. Chemical Hygiene Officer (CHO) duties are performed by the NPS Safety/Occupational Safety & Health Manager (Code 223).

- a. Works with chemical user activity personnel to develop and implement appropriate chemical hygiene policies and practices.
- b. Develops and publishes the NPS (employer) CHP.
- c. Monitors the procurement, use and disposal of chemicals at NPS.
- e. Helps subordinate chemical users develop precautions and proper facilities by providing specific guidance and recommendations.
- f. Is knowledgeable of current legislation, regulations and instructions that affect regulated chemicals. Disseminates information on same to subordinate level personnel. Provides inter-pretation of instructions.
- g. Provides sufficient chemical hygiene training to subordinate personnel to enable them to fulfill their obligations under the NPS CHP.
- h. Conducts CHP compliance inspections and provides written findings with corrective recommendations to NPS chemical user departments.
- i. Review & evaluate the effectiveness of the CHP at least annually & update it as necessary.

3. Laboratory Manager has responsibility within department for compliance with NPS CHP.
 - a. Ensures subordinate workers receive and comply with training provided by CHO.
 - b. Ensures that prescribed PPE is available in working order.
 - c. Receives and complies with training provided by CHO.
 - d. Ensures that subordinate workers are aware of and comply with CHP requirements, SOP's, and other instructions and policies that govern chemical use.
 - e. Conducts periodic inspections of procedures and facilities to ensure compliance with CHP.
 - f. Remain aware of current instructions governing chemical usage by reading instructions and policies disseminated by CHO.
 - g. Follows recommendations of CHO and Industrial Hygienist in establishing PPE requirements and facility configuration.
 - h. Notifies the CHO of changes in specific laboratory operations and procedures.
 - i. Ensuring Material Safety Data Sheets (MSDS's) are obtained for all hazardous chemicals and made readily available to all affected employees.

4. Research Professor is responsible for compliance with CHP in his/her research laboratory.

- a. Ensures that individual students and research associates are properly indoctrinated in CHP, HAZMAT, safety and health procedures prior to permitting laboratory activities to begin.
- b. Seeks assistance of laboratory technician, or laboratory manager when uncertain of proper course of action.
- c. Assists students in writing an MSDS for chemical mixture creations.
- d. Assures that chemical stocks in research laboratories are properly stored and inventoried.
- e. Makes written advisement to the Laboratory Manager of any new laboratory program, of significant changes in operations.

5. Laboratory Technician is responsible to be knowledgeable of CHP, HAZMAT, safety and health practices as promulgated in the CHP.

- a. Orients class laboratory sections on procedures and control measures to be followed.

- b. Observes individual practices in laboratories and makes on-the-spot corrections where necessary.
- c. Provides assistance when requested.
- d. Reports instance of willful violations to laboratory manager.
- j. Ensures that PPE and spill materials are available in laboratory spaces.
- k. Maintains a written record of laboratory safety orientations provided.
- g. Conducts monthly inspections of HAZMAT lockers and weekly testing of eyewash/shower facilities in assigned area.

6. Thesis Student or other Laboratory Worker is responsible for complying with verbal and written instructions, and posted notices in applicable laboratories.

- a. Will not undertake any laboratory operations until having read this CHP and been properly trained by Laboratory Technician or Research Professor on specific actions to be conducted.
- b. Seeks assistance from qualified personnel when uncertain of correct course of action.
- c. Reports unsafe laboratory conditions to laboratory personnel, professor, or Laboratory Manager.
- d. Utilizes PPE when prescribed.
- e. Annotates fume hood logbook each time fume hood is utilized.
- f. Updates chemical inventories when using chemicals.
- g. Strictly complies with chemical disposal procedures.
- h. Ensures spill absorbent material is on hand prior to undertaking laboratory operations.

APPENDIX A – STANDARD OPERATING PROCEDURES FOR WORKING WITH CHEMICALS.

Every worker and user of a laboratory will be familiar with the following basics of laboratory procedures:

- a. Avoidance of Routine Exposure. Avoid unnecessary exposure to chemicals by any route. Never smell or taste chemicals - open and vent containers under a fume hood. Inspect all gloves and PPE prior to use. Do not allow release of toxic substances into hot or cold rooms, which contain re-circulated air, or into confined

spaces.

- b. Eating, drinking. Avoid eating, drinking, chewing gum or applying cosmetics in areas where chemicals are present. No smoking is permitted inside any building. Food and chemicals will not be jointly stored in any cabinet, refrigerator, or other facility.
- c. Equipment and Glassware. Handle and store glassware carefully to avoid damage. Never use damaged lab equipment. Whenever possible, stopper glassware loosely to avoid the buildup of positive/negative pressures and the possibility of explosion/implosion. Where this possibility exists, shield the container. Use equipment only for its intended purpose.
- d. Exiting. Wash exposed skin areas when leaving the laboratory.
- e. Horseplay. All types of horseplay and practical jokes, which may startle or distract a person using chemicals, are strictly forbidden.
- f. Mouth Suction. Never use mouth suction to start a siphon.
- g. Personal Apparel. Confine loose clothing and long hair at all times. Solid top shoes should be worn at all times. Sneakers, sandals, and perforated top shoes should not be worn.
- h. Personal Housekeeping. The work area should be kept orderly and uncluttered at all items. Close containers not in use. Label containers and equipment. Put away equipment at the completion of the operation or at the end of the day.
- i. Personal Protective Equipment. All persons in the laboratory when chemical operations are being conducted will wear eye protection. Gloves will be worn at any time chemicals are being handled. Other PPE will be worn, as specified. PPE will be cleaned and stored after each use. Respirators will only be used in strict compliance with the NPS Respirator Program.
- j. Planning. Prior to undertaking any new or significantly changed operation, a memo of particulars will be submitted to the CHO via the Laboratory Manager to ensure that appropriate safeguards are in place.
- k. Unattended Operations. Unattended operations should be avoided whenever possible, particularly when overflow, or overheating is a possibility. Leave lights on, with an appropriate sign on the door, and provision for necessary containment.
- l. Use of Hood. Use the hood whenever possible for operations which might result in release of vapors or dust. Always use the hood when working with highly volatile substances, which have a TLV of 50 PPM or less (information available from MSDS). Always work with the hood at the lowest feasible opening height. Minimize storage of materials under the hood.
- m. Vigilance. Every individual should always be alert to unsafe conditions and either

correct them immediately or report them to a professor, technician, or the laboratory manager.

- n. Waste Disposal. All waste disposals will be conducted in accordance with NAVPGSCOLINST 6280.4 Hazardous Waste Program.
- o. Working Alone. Avoid working alone whenever possible. Do not work alone if hazardous procedures are being conducted, or if a substance of unknown toxicity is being used.

2. Working with Allergens and Embryo toxins. Women of childbearing age will not handle, use or become exposed to embryo toxins.

3. Work with Chemicals of Moderate Chronic or High Acute Toxicity (CMCHAT) Example: Hydrofluoric Acid.

- a. Aim: To minimize exposure by any route using all reasonable precautions.
- b. Applicability: These precautions apply to CMCHAT when used in significant quantities.
- c. Location: Use and store CMCHAT only under lock and key control. Mix and use only in a properly functioning fume hood.
- d. Personal Protection: Always avoid skin contact by use of gloves and long sleeves. Always wash hand and arms after working with CMCHAT.
- e. Records: Record date, user and amount in fume good logbook.
- f. Prevention of spills and accidents: Be prepared for a spill at all times. Ensure that spill absorbent material is readily at hand prior to commencing operations. Ensure at least two people are present at all times CMCHAT is being used. Use only the minimum amount necessary. Mix and utilize in unbreakable plastic containers whenever possible, on trays or absorbent mats. If a major spill occurs, comply with NPS Emergency Spill Procedures.
- g. Waste: Dispose of waste and contaminated material in strict accordance with NAVPGSCOLINST 6280.2B.

4. Work with Chemicals of High Chronic Toxicity (CHCT)

- a. Access: All transfers and work with CHCT's will be conducted only in areas of strictly controlled access in either a hood or a glove box. All storage will be under lock and key. Operations with CHCT will not be left unattended.
- b. Approvals: No CHCT will be used until approval is obtained from the CHO, through the chain of command. User will submit location, quantity and frequency of use.

- c. Contamination: Prevent contamination of vacuum pumps by use-in-line HEPA filters. Decontaminate any equipment, including glassware, under a hood. Decontaminate the controlled area before resuming other operations.
- d. Exiting: On leaving a controlled area, remove any protective apparel and place it in a labeled container or storage area.
- e. Housekeeping: Use a wet mop to clean a CHCT area. Do not dry sweep. If vacuuming, use an in-line HEPA filter if the substance was a dry powder.
- f. Medical Surveillance: The CHO will, from user-submitted data, enroll selected CHCT users in medical surveillance.
- g. Records: All use of CHCT in fume hoods will be recorded in the fume hood logbook. The research professor will require that all other use of CHCT be recorded in a laboratory logbook noting date, name, chemical and quantity used.
- h. Sign and Labels: The controlled area will have conspicuous signs marked with appropriate warnings and notices. Containers will be marked with NFPA label.
- i. Spills: Spill absorbent will be immediately available when working with CHCT. All contaminated absorbent material will be turned in as controlled hazardous waste.
- j. Storage: All CHCT will be strictly stored in chemical storage lockers under lock and key. CHCT will be stored in labeled, unbreakable, chemically resistant, secondary containers.
- k. Glove Boxes: Inspect glove boxes for serviceability prior to use. Do not use any glove box with a torn glove or leaking seal.
- l. Waste: Use chemical decontamination whenever necessary. Ensure that all CHCT wastes and empty CHCT containers are turned in as hazardous waste in accordance with NAVPGSCOLINST 6280.2B.
- m. Animal Work with Chemicals of High Chronic Toxicity: No animal work of any type will be conducted in the _____ Department of the Naval Postgraduate School.

APPENDIX B – EMERGENCY RESPONSE PLAN

1. Each laboratory emergency is going to be unique; therefore it is difficult to specify one set of response procedures to follow. The first 10 minutes of any emergency are referred to, as the “Golden Minutes”. That which is accomplished during the Golden Minutes of any emergency will determine the relative success of all emergency response efforts. Regardless of the specific emergency any given laboratory may be faced with, it is important for all laboratory employees to understand that if they are

unsure as to what to do first or next during an emergency, they should remember the “PEP Rule”:

- a. People First!
- b. Environment Second!
- c. Property Last!

2. Dependent upon the nature and size of emergency, some, or all of the following individuals should be immediately contacted:

- a. Fire Department: 656-2333 or 911
- b. Police Department: 656-2555 or 911
- c. Chemical Hygiene Officer: 656-2822
- d. Hazardous Materials Coordinator: 656-4508
- e. Environmental Manager: 656-2841
- f. Safety Officer: 656-2822
- g. Poison Control Center: 1-800-876-4766

Please note that specific instructions for reporting emergencies via telephone may be found in NAVPGSCOLINST 11320.2E, “Procedures for Reporting an Emergency on Naval Postgraduate School Property by Telephone.” Additionally, the Chain of Command should always be informed of any emergency situation.

3. Chemical Exposures:

- a. Inhalation – Remove the exposed employee from the affected area, into fresh air. Provide oxygen (emergency medical services) if the employee is having difficulty breathing.
- b. Eye Contact – Flush the eye with copious amounts of cold water for at least 15 to 20 minutes. Keep the eyelid open by using the thumb and forefinger to get water into the eye. Ensure the exposed employee rolls their eyes while using the eyewash. Victims should blink their eyelids regularly to help flush out the contaminant.
- c. Skin Contact – Flush the skin with copious amounts of cold water for at least 15 to 20 minutes. Contaminated clothing must be removed to prevent further exposure from the hazardous material.
- d. Ingestion – In case of ingestion of poisonous materials, contact the Poison Control Center for emergency procedures. **DO NOT** induce vomiting if the material is corrosive. Poisons will usually require vomiting to be induced.

4. Spills: Spills and leaks of chemical/hazardous materials in excess of 500 ml shall be cleaned up i.a.w.

NAVPGSCOLINST 6280.1D, "OIL & HAZARDOUS SUBSTANCE SPILL CONTINGENCY PLAN."

However, it is expected that most spills will be small in size (<500 ml or less) and can be easily contained by immediate use of absorbent material available in the laboratory space. The first action to take with any spill is to stop the SPILL (upright the bottle, shut the valve, shut-off the burner) from spreading.

It is important to remember that in the event of a chemical spill/leak, protecting personnel is more important than cleaning-up the spill. Specifically:

- a. Provide first aid to injured personnel, even if they are contaminated with a hazardous material.
- b. Decontaminate contaminated personnel.
- c. It may be necessary with some emergencies to evacuate any area where unprotected personnel may become exposed to the hazardous chemical spill/leak. Upon evacuation take a head count of all personnel according to the evacuation plan to ensure that every worker is accounted for.
- d. Prevent re-entry of personnel into the hazardous area.

After all personnel are safe, commence spill clean-up procedures. Spills of hazardous chemicals should be cleaned from the outside edges of the spilled area towards the center of the spilled area utilizing appropriate personal protective equipment. Contaminated absorbent material and other contaminated items will be disposed of i.a.w. the NPS Waste Disposal Program, NAVPGSCOLINST 6280.4.

5. Fire: Successful response to fires requires preparedness. All laboratory personnel shall know the locations of fire alarm pull boxes, fire extinguishes, evacuation routes and shall be trained in the use of fire extinguishers. Specific actions include.

- a. Use the nearest fire alarm box and/or telephone – ext. 2338 or dial 911.
- b. Quickly exit the building. Ensure any physically challenged personnel are provided assistance to exit the building. Elevators are not to be utilized during a fire situation in a building.
- c. Determine if the fire is major or minor in scope, if it's a major fire, evacuate immediately.
- d. If time permits, close doors and windows to confine the fire and prevent drafts.
- e. Attempt to extinguish minor fires with the appropriate fire extinguisher if it is safe to do so, and if the individual that uses the fire extinguisher is properly trained.

f. To extinguish the fire, follow the PASS rule:

Pull the pin,
Aim the nozzle at the base of the fire
Squeeze the handle,
Sweep back and forth.

g. Assemble away from the building to a pre-designated area assigned by your building coordinator. Supervision must account for all personnel.