

SOUTHSIDE VIRGINIA COMMUNITY COLLEGE
GENERAL SAFETY PLAN

CRISIS MANAGEMENT PLAN

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Fire Safety and Emergency Plan, OSHA, Safety Policies and Procedures, Record Keeping Requirements, Training, Means of Egress, Occupational Health and Environment, Personal Protective Equipment, Medical and First Aid, Fire Protection, Material Handling and Storage, Machine Guarding and Mechanical Safety, Portable Powered Hand Tools, Welding Cutting and Brazing, Electrical, Illumination, Boilers HVAC and Piping, Laboratory Safety, Crisis Management Plan

College Maintenance & Operations Plan

SAFETY PLAN

I. INTRODUCTION

A. Purpose

Southside Virginia Community College's Safety, Fire and Environmental Health Plan is established to provide and maintain comprehensive and continuing effort that is in accordance with the policies of the Institution's Administration. The primary goal of the program is to establish, promote, implement, and maintain good safety, fire prevention, and health procedures, policies, and practices for the student body, faculty, and staff.

B. Objective

Objectives of this Safety Plan include:

1. Develop a comprehensive Safety Manual. The manual will include policies, rules, regulations, standards, etc. that will insure the institution's compliance with State and Federal laws.
2. Develop and distribute an Emergency Response Procedures Manual.
3. Use of the Operational Affairs Committee and/or Safety Committee and the Vice President's Office to assure a safe campus and to maintain sound working relationships with the Buildings and Grounds Department.

4. Continue the effort to assure an effective and beneficial training program for the purpose of assuring safety, fire, and environmental health awareness.
5. Conduct periodic inspections to assure compliance with all standards, rules, and regulations issued by State and Federal agencies.
6. Maintain Safety, Fire, and Environmental Health records as required.
7. Assist in technical problem solving activities to assure compliance with State and Federal regulations. Review of architectural drawings and specifications of new construction projects to assure adherence to Safety, Fire, and Environmental Regulations.

C. Policy Statement

The personal safety and health of each employee and student of this institution are of primary importance. The safety and health program is directed toward both the well-being of employees and students to provide a safe and healthy environment.

To be successful, such a program must embody the proper attitudes toward injury and illness prevention on the part of supervisory employees and students. It also requires cooperation in all safety and health matters.

SVCC's objective is a safety and health plan that will reduce the number of injuries and illnesses to an absolute minimum. Encouragement and endorsement of safety-related activities have been emphasized at every level of management, and it is the college's goal to maintain an accident free record.

D. Responsibility Statement

1. Employee Responsibility

All employees will be made aware of college safety rules regulations as established by the college. Employees will be responsible for their actions on the college campus in regard to their own safety and actions that could affect other employees. Employees must exercise good judgment and common sense with respect to their on the job performance while using equipment or making decisions that relate to their safety and the safety of others, including students in classrooms and laboratories as well as college employees. Safety is brought about by human beings that are safety conscious and having been trained to work and react in a conscientious manner. Safety is a matter of self-discipline and awareness that only you can give yourself.

2. College's Responsibility

The college is responsible to make every effort to train employees and promote safety in the work place by providing policies, procedures and a work place environment that is safe and free from hazards that could create accidents. It is the responsibility of the college to provide safety programs and orientations and take necessary disciplinary actions when safety violations occur by employees.

The College, with permission of the State Fire Marshall, utilizes a Fire Safety Plan in lieu of holding fire drills each semester. Every instructor in the classroom on the first class meeting reviews the Fire Safety Plan with students, calling their attention to the fire exit plan posted on the wall just inside the room door. (The designation of students to assist the instructor with any disabled students that might be in the class is done at this time.)

Southside Virginia Community College

FIRE SAFETY AND EMERGENCY PLAN

1. To exit the building in case of fire or emergency, students should use the evacuation route posted near the doorway. (Instructor should insure that students are familiar with the route as posted.)
2. You should remain outside the building until a College official tells you to return.
3. The instructor will ask the first student leaving the classroom/laboratory to "PULL" the fire alarm located in the hallway.
4. The instructor will designate one or more persons to assist any physically disabled person(s).
5. Once everyone is safely out of the building, the instructor or his/her designee will use the nearest telephone to notify the campus operator of the emergency. The switchboard operator will contact the appropriate emergency service(s).

Accidents & Accident Forms

Forms to cover various types of accidents are provided, along with instructions for their use. More specific instructions are provided for automobile accidents, but employees need to be aware that calling the **STATE POLICE is required** if you are driving a state vehicle or your own vehicle and getting reimbursed for the mileage.

Automobile Loss Notice (Instructions shown)

General Liability Loss (For student accidents)

Workmen's Compensation Report (Employer's First Report of Accident) This form must be filed or completed by the Vice President of Finance & Administration's office and filed within 2 working days of the accident.

WHO'S RESPONSIBLE AND DIFFERENT CLASSIFICATION FOR ACCIDENTS:

STUDENT ACCIDENTS: All faculty and staff should be aware of student accidents and their responsibility to assist in any manner they can including providing assistance or securing professional assistance to take care of the situation. The same individual or individuals need to be aware the accident needs to be reported to the college business office as soon as feasible. Other information that is needed for the college's responsibility are:

1. What happened or how did the accident occur.
2. Were there any witnesses to the accident.
3. Where the accident happened and at what time it occurred.
4. Names of injured or any witnesses.

FACULTY AND STAFF ACCIDENTS: Accidents must be reported to the employee's supervisor as soon as feasible. If the employee is unable, another faculty or staff member should take this responsibility as soon as the injured employee has been attended to. These accidents are reportable under **WORKMEN'S COMPENSATION LAWS** which require **THE** college to report them and the details involved within seven working days of the occurrence. The following information is required:

1. How did the accident occur and what caused it.

2. When was it reported to the employee's supervisor.
3. Where there any witnesses to the accident.
4. Information on possible injuries to the employee.
5. Date and time of the accident.
6. Will there be lost work time because of the accident.

Environmental Compliance Guide and Information

In today's environment the College must concern itself with the procurement, use, and disposal of many chemicals-pesticides that are being used in the college laboratories, shops, and physical plant needs. The presence of these products on the college campus requires an awareness of each individual that uses or comes in contact with them. Some of these products are potentially toxic both during the use and storage and need to be handled by informed faculty and staff. After a certain time lapse, many of these chemicals can become hazardous materials. Most of these products are regulated by OSHA criteria and standards for the protection of the users.

The College must provide information to all faculty and staff regarding the use and disposal of these chemicals and have copies of these material safety data sheets in the science labs and the Buildings and Grounds Superintendent's office.

Occupational Health and Safety Act

Introduction

The Williams-Steiger Occupational Safety and Health Act of 1970 went into effect April 28, 1971. The purpose and policy of the act is "to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources." On March 1 of 1974 (revised February 2, 1987), the Safety and Health Codes Commission of the Commonwealth of Virginia adopted the Virginia Occupational Safety and Health Program (VOSHA). All rules, regulations and standards developed and required by the OSHA and the Virginia Department of Labor and Industry will be observed by all operations of the Virginia Community College System. All inspections conducted by the Virginia Department of Labor and Industry will be made in an effort to comply with these standards.

Occupational Safety and Health Standards

In general, job safety and health standards consist of rules for avoidance of hazards which have been proven by research and experience to be harmful to personal safety and health. They constitute an extensive compilation of wisdom which sometimes applies to all employees. An example of this would be free protection standards. A great many standards, however, apply only to workers while engaged in specific types of work, such as handling compressed gases. It is the obligation of all employees and employers to familiarize themselves with those standards which apply to them and to observe them at all times.

Any employee who has been or is being exposed in a biologically significant manner to harmful agents or materials in excess of applicable standards shall be promptly notified by his employer, and informed of corrective action being taken.

Complaints of Violations

Any employee (or representative thereof) who believes that a violation of job safety or health standard exists which threatens physical harm, or that an imminent danger exists, may request an inspection by sending a signed written notice to the Department of Labor. Grounds for the notice and a copy shall be provided to the employer. Names of the complainants need not, however, be furnished to the employer.

If the secretary finds no reasonable grounds for the complaint and a citation is not issued, the commissioner is required to notify the complainants in writing of his determination of final disposition of the matter.

Penalties for Violations

State and Federal laws provide stiff penalties for both employers and individual supervisors who violate safety and health laws. Furthermore, employers who discriminate (or encourage others to do so) against an employee because such employee has filed a complaint of, or testified in regards to a violation of State and Federal safety and health (hazardous situation) may be fined up to \$1,000. However, failure to correct a non-serious condition within the prescribed time period can carry penalties up to \$1,000 per day. In addition, there are other administrative violations for which citations may be issued. For example, falsifying records, reports, or applications can bring a fine of \$10,000 and up to six months in jail for each occurrence. For any employer who willfully or repeatedly violates the Act, penalties of up to \$10,000 for each violation will be assessed. Penalties for violations of State and Federal safety laws may include personal liability for executives punishable by fines and/or imprisonment.

Safety Officer

Responsibility for the safety and health program may be assigned to any individual. For the purpose of discussing authorities and responsibilities, the individual at the Community College responsible for the safety and health program will be the Vice President of Finance & Administration and will be referred to in the plan as the Safety Officer.

Safety Education

Review of Accidents and Safety Problems

The Safety Officer will review accident experiences and allied safety problems that arise on or are connected with Virginia Community College System's property, review reports of serious accidents and fires, and submit recommendations to correct hazardous conditions to increase safety efficiency. The Safety Officer has the responsibility of recommending essential changes in existing policies to improve safety efficiency, physical or structural alterations required to eliminate control hazards and provide programs designed to create and maintain interest in safety.

Promotion and Publicity

The Safety Officer conducts campus site safety and health promotion and publicity programs as required by the community college. The facilities of the Safety Officer will be available to departments in publicizing the Safety and Health Program.

Purchase and Design of Safety Equipment

The Safety officer will assist the community college in determining the need for specific types of safety guards, apparel, storage containers, or any other safety equipment. On request the Safety Officer will provide source and standards information for safety equipment.

Procurement of Safety and Health Materials and Matter

The Safety Officer will provide, on request, assistance to all departments in training personnel in fire prevention and fire fighting accident prevention, environment health and sanitation, personal first aid and other related subjects required at the community college to meet compliance requirements.

Training assistance in the following safety and health areas are available through the Safety Officer.

- a. Fire Prevention, Suppression, and Evacuation
- b. First Aid in Emergencies
- c. Environmental Health and Sanitation

Miscellaneous

The Safety Officer will from time to time publish safety fact sheets and statistics in order that department heads may have the current indicators of trends, hazardous areas and deficiencies in the safety and health program. In addition, the Safety Officer will prepare charts, graphics, posters, training aids and other related items as deemed necessary to further the safety and health goals of the community college.

Accident Reports

The Safety Officer is responsible for maintaining an accurate file and coordinating all accident/injury reporting procedures.

Safety Policies and Procedures

Fire Evacuation Plan

In each classroom, laboratory, or other places where students are assembled for the purpose of instruction, a fire evacuation plan will be posted indicating the direction of travel from the room in the event it becomes necessary to evacuate the building as a result of fire or other emergency. The plan will be reviewed annually, and should include instructions for caring for handicapped occupants. The plan will be posted in a conspicuous place near the exit from the room. Each instructor should insure that students are familiar with the evacuation route posted in each classroom. Also, that any time the fire alarm sounds, the building will be evacuated. Students will be made aware of the evacuation plan location and instructed to follow this plan when evacuation of the building becomes necessary for any emergency. Each department head will be responsible for insuring that the fire evacuation plan is present in each room. The Safety Officer will be notified when it becomes necessary to replace the plan. It is the instructors' responsibility to see that any handicapped students in his or her classroom are assisted in evacuating the building.

Safety Plan

The Safety Officer is responsible for updating the Community College Safety Plan. The Community College Safety Plan is intended to provide general rules for Safety and Health and establish procedures to further the ultimate goal of the Community College Safety Program. As a minimum it should cover most common safety and health work situations found at the college.

The Community College may (but is not required to) use this Safety Guide for Physical Plant Operations as their safety manual instead of developing and maintaining a separate document. If adopted by the college, any additional unique safety considerations must be attached to this guide along with a statement appointing a Safety Officer and any other individuals that may be assigned safety responsibilities. The addition of such attachments

has been provided for by reference to additional appendices. The table of contents should be updated to reflect any attachments. Additional copies of this plan are available from the Vice President of Finance's secretary.

General Safety Rules

Accident Prevention Signs and Tags

Signs and symbols required by this part shall be visible at all times when work is being performed, and shall be removed or covered promptly when the hazard no longer exists. Refer to the Occupational Safety and Health manuals for examples and specifications of marking physical hazards.

Danger Signs

Danger signs shall be used only where an immediate hazard exists. These signs shall have red as the predominate color for the upper panel; blank outline on the borders; and white lower panel for additional sign wording.

Caution Signs

Caution signs shall be used only to warn against potential hazards or to caution against unsafe practices. These signs shall have yellow as the predominate color; black upper panel and borders; yellow lettering of "caution" on the black panel; and the lower yellow panels for additional sign wording.

Exit Signs

Exit signs shall be lettered in legible red letters, not less than 6 inches high, on a white field and the principal stroke of the letter shall be at least three-fourths inch in width.

Safety Instruction Signs

Safety instruction signs, when used, shall be white with green upper panel with white letters to convey the principle message. Any additional wording on the sign shall be black letters on the white background.

Directional Signs

Directional Signs shall be white with a burgundy panel and white directional symbol. Any additional wordings on the sign shall be burgundy letters on the white background.

Traffic Signs

Construction areas shall be posted with legible traffic signs at the points of hazard. All traffic control signs or devices used for protection or construction workmen shall conform to American National Standards Institute 6.1-1961, Manual on Uniform Traffic Control Devices for Streets and Highways.

Accident Prevention Tags

Accident prevention tags shall be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc. They shall not be used in place of, or as substitute for, accident prevention signs.

Microwave Ovens

The United States Department of Health, Education and Welfare offers the following safety tips for all microwave oven users:

- a. Read the instruction manual for the manufacturer's recommendations for safe operation of the oven.
- b. Examine the oven for evidence of shipping damage.
- c. Stay at least a full arm's length away from the front of an operating oven.
- d. Switch the oven timer off before opening the door.
- e. Do not allow children near the viewing port to watch the cooking food.
- f. Never insert objects (for example, a fork prong, aluminum foil, wire) through the door grill or around the seal.
- g. Never tamper with or inactivate the oven safety interlocks-devices to turn off the oven automatically when the door is opened.
- h. Never operate an empty oven.
- i. Do not use metal cook ware.
- j. Frequently clean oven cavity, door and seals with water and mild detergent. Do not use scoring pads, steel wool, or other abrasives.
- k. Have oven regularly serviced by a qualified serviceman for sign of wear, damage, or tampering.

Housekeeping

During the course of construction, alterations or repairs, forms and scrap lumber with protruding nails, and all other debris shall be kept cleared from work areas, passageways, and stairs, in and around buildings or other structures.

Combustible scrap and debris shall be removed daily during the course of construction. Safe means shall be provided to facilitate such removal.

Containers shall be provided for the collection and separation of water, trash, oily and used rags, and other refuse. Containers used for garbage and other oily, flammable or hazardous wastes, such as caustics, acids, harmful dusts, etc., shall be disposed of at frequent and regular intervals.

Personal Protective and Life Saving Equipment

Head Protection

Employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock, and burns shall be protected by protective helmets.

Helmets for the protection of employees against impact and penetration of falling and flying objects, shall meet the specifications contained in American National Standards Institute Z.89.1-1969. Safety Requirements for Industrial Head Protection.

Helmets for the head protection of employees exposed to high voltage electrical shock and burns shall meet the specifications contained in American National Standards Institute Z.89.2.1970.

Hearing Protection

Wherever it is not feasible to reduce the noise levels or duration of exposures of noise specified in Table G-16, Permissible Noise Exposure in 1910.95 Occupational Safety and Health Act Standard, ear protection devices shall be provided and used.

Ear protection devices inserted in the ear shall be fitted or determined individually by competent persons. Plain cotton is not an acceptable protective device.

Eye and Face Protection

Employees shall be provided with eye and face protection equipment when operating machines or equipment which present a potential eye or face injury from physical, chemical, or radiation agents.

Eye and face protection equipment shall meet the requirements specified in American National Standards Institute Z.87.1-1968, Practice for Occupational and Educational Eye and Face Protection.

Employees whose vision requires the use of corrective lenses in spectacles, when required by this part to wear eye protection, shall be protected by goggles or spectacles or one of the following types:

- a. Spectacles when protective lenses provide optical correction.
- b. Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.
- c. Goggles that incorporate corrective lenses mounted behind the protective lenses.

Face and eye protection equipment shall be kept clean and in good repair. The use of this type equipment with structural optical defects shall be prohibited.

Respiratory Protection

In emergencies, or when controls required in the section pertaining to personal Protective Equipment fail or are inadequate to prevent harmful exposure to employees, appropriate respiratory protective devices shall be used.

Respiratory protective devices shall be approved by the United States Bureau of Mines or be acceptable to the United States Department of Labor for the specific contaminant to which the employee is exposed.

Respirator Selection

The physical and chemical properties of the contaminant, as well as the toxicity and concentration of the hazardous material, shall be considered in selecting the proper respirators. Conditions, as well as the limitations and characteristics of the available respirators, shall also be factors considered in making the proper selection.

Issuance, Use and Care of Respirators

Employees required to use respiratory protective equipment approved for use in atmospheres immediately dangerous to life shall be thoroughly trained in its use. Employees required to use other types of respiratory protective equipment shall be instructed in its use and limitations on such equipment.

Respiratory protective equipment shall be inspected regularly and maintained in good condition. Gas mask canisters and chemical cartridges shall be replaced as necessary so as to avoid undue resistance to breathing.

Respiratory protective equipment which has been previously used shall be cleaned and disinfected before it is issued to another employee.

Emergency rescue equipment shall be cleaned and disinfected immediately after each use.

Electrical Protective Devices

Rubber gloves, blankets, sleeves, insulating boots, line hose, shall be worn or used by those employees subjected to contact of high voltage sources. Rubber gloves and blankets will be dielectrically tested every 60 days and all other equipment will be visually inspected every time it is used.

Public Assembly Buildings

In order to ensure timely evacuation of buildings in the event of fire or other accidents, all interior and exterior exits (to include fire escapes) will be properly marked and illuminated when the building is in use.

Exit doors must open outward and be in proper operating condition.

Doors, to include sections of double doors, will not be locked while groups of persons are present in the building. Exterior doors of auditoriums, cafeteria and classroom buildings shall be equipped with panic hardware in usable condition.

Doors must not be blocked or barred when buildings are in use. All aisles and hallways leading to exits must be kept free of debris, storage, or other obstruction at all times. Landings, stairs, and steps shall be equipped with the proper number of handrails maintained in good condition. Exit routes must be adequately illuminated. Floor surfaces must be kept clean, in good condition, and cleared of slipping and tripping hazards.

All exit lights must be maintained in good order. Cigarette receptacles should be provided in smoking areas and immediately adjacent to entrances to "No Smoking" areas. Cigar and cigarette butts will be disposed of in the proper container.

Color Code

The Community College recognized the American National Standard Code Z.53.1-1967 as the best authority for good practice in marking of physical hazards and the identification of certain equipment. As defined in the code these are the basic meanings of color usage:

COLOR DESIGNATION

Red Fire Apparatus-Stop-Danger.

Orange Dangerous part of machine or energized equipment.

Yellow Marks physical hazards and designates caution. Also designates fire lanes and tow away zone.

Green Designated "Safety" for bulletin boards, gas masks, first aid kits, safety deluge showers.

Blue To warn against starting, use of or movement of equipment under repair or being worked upon.

Purple Ionizing radiation exposure present.

Yellow/White Service areas.

Black/White Designation of traffic and combinations of black housekeeping markings.

Storage and Use of Flammable Liquids

For the purpose of this program, flammable liquids may be defined as those liquids with a flash point of 140 degrees F. or less and having a vapor pressure not exceeding forty pounds per square inch (absolute) at 100 degrees F.

Flammable liquid containers in excess of one (1) gallon shall not be stored in buildings, laboratories, storerooms, or garages. The exceptions are warehouses or vaults designed for this type of storage.

Flammable liquids will be dispensed from and stored in standard safety cans conspicuously labeled as to contents. Dispensing drums will be properly grounded and bounded.

Flammable liquids required in small quantities for frequent use will be stored in approved safety cans in a metal cabinet or closet ventilated to the outside where practical.

Flammable liquids will not be used for cleaning floors, clothing, or equipment.

For those laboratories and shops which do not have a satisfactory flammable liquid disposal system, flammable liquids requiring disposal will be segregated and stored until disposition instructions are received from the Safety Officer. At no time will flammable liquids be poured down drains or sewers. In those cases not covered by specific guidance, the Safety Officer will be contacted immediately.

All containers for storage, issue and transport of flammable liquids shall be clearly marked in accordance with Section 326 of the National Fire Code.

All devices for closing or sealing such containers shall be in good operating condition.

Painting and Paint Storage

Paints and painting is defined to include varnish, shellac, or similar commodities.

Painting, other than minor touch-up or home maintenance type projects will be done only in specified areas designated for this purpose. The exception shall be new construction or renovation projects.

Indoor spray painting will be permitted in properly equipped and specifically designated spray painting booths.

All spray booths, paint rooms, and equipment will be thoroughly cleaned at the close of each day's work.

Paint shall be stored in sealed containers. Paint in unsealed containers will be stored at a safe distance from any combustible type construction or source of ignition.

Wiping rags, strainers, drop cloths, and paint stained work clothing will not be stored with paint thinners, turpentine or other combustible type materials.

Paint brushes will not be left to soak in cleaning fluid but will be cleaned and suspended for air drying and the cleaner will be disposed of or returned to the original container.

All waste masking paper will be removed from the building at the close of each day's work. Oil rags or cleaners must be stored.

All paint spills will be cleaned up immediately. Benches, floors, and all equipment will be cleaned of accumulations of paint.

Smoking is prohibited in any part of the paint shop or in the vicinity of painting.

Empty paint containers will be disposed of daily.

"No Smoking" signs of large letters or contrasting color background shall be conspicuously posted at all spray paint booths.

Each foreman will be held responsible for and will personally inspect all fire extinguishers and will assure himself of their operating condition before ordering work to commence.

Material Handling

Stacked material shall have a minimum clearance of thirty-six (36) inches between the top of the stacks and joists, rafters, or roof trusses.

Where fire fighting equipment locations and manual fire alarm boxes are not visible from the center aisle, direction signs with white letters on a red field will be erected at an appropriate location.

Approved trucks shall bear a label or some other identifying mark indicating approvals by the testing laboratory for the use and type of environment.

All rider high lift trucks shall be fitted with an approved overhead guard.

Only trained and authorized operators shall be permitted to operate a powered industrial truck.

When leaving a powered industrial truck unattended, lift will be fully lowered, controls neutralized, power shut off, brakes set, and key removed.

Spinner knob shall not be installed unless furnished with original equipment.

Power operated industrial trucks shall not be used in atmospheres containing hazardous concentrations of acetylene, butadiene, ethylene oxide, hydrogen, propylene oxide, acetaldehyde, cyclopropane, diethyl ether, ethylene, or unsymmetrical dimethyl (UDMH).

Aisles will be clearly designated by the use of yellow stripes.

Electrical Safety

No unauthorized person shall tamper with electrical fuse boxes/circuit breakers, alter existing wiring, or install electrical wiring.

Extension Cords

Extension cords and electrical appliance wiring shall be maintained in good repair and must bear the Underwriter Laboratory label (UL) or meet standards of the National Fire Protection Association Code 70. Extension cords will not be used outside the room in which the fixture outlet is located. Under no circumstances shall any extension cord or electrical cord be spliced.

Household type extension cords shall not exceed eight (8) feet in length. Light weight (less than number 14 wire) extensions cords shall not be used. All electric cords shall be properly grounded when in use. This may not be used in the place of permanent wiring.

Fuses and Circuit Breakers

The placing of pennies behind fuses, strapping burned out fuses and/or making direct contact is an extremely hazardous action and not permitted. Circuit breakers and other load protection devices shall not be strap wired or otherwise disabled.

Appliances

Only appliances bearing the Underwriter Laboratory (UL) shall be connected to the electrical distribution system. Appliances that are deemed unsafe shall be removed.

Appliances available for use shall be considered in use.

Hot plates, coffee pots, electric irons, and other heating equipment (other than those in cafeterias) shall be placed on noncombustible surfaces. They will not be closer than eighteen inches to any combustible wall unless the surface of the wall is shielded by a metal covering extending no less than twelve inches above the appliance.

Personal appliances used by employees shall be required to meet all standards established for college owned appliances.

Laboratory Furnaces and Kilns

Metal Pouring is a particularly hazardous operation, due to the possible presence of impurities in the molds, ladles, pouring troughs, or the metal itself which could cause "spluttering" or "pudding."

Individuals operating metal melting furnaces or kilns must be provided with and required to wear approved eye shield, gloves, and aprons. Bare flesh should not be exposed during the pouring or removal of heated items.

The appropriate class fire extinguishers should be immediately available in the furnace area in the event of fire.

Disposal of Construction Waste Materials

Whenever materials are dropped more than 20 feet to any point lying outside the exterior walls of the buildings, an enclosed chute of wood, or equivalent material, shall be used. For the purpose of this part, an enclosed chute is a slide, closed in on all sides, through which material is moved from a high place to a lower one.

When debris is dropped through holes in the floors without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 6 feet back from projected edge of the opening above. Signs warning of the hazard of falling materials shall be posted at each level. Removal shall not be permitted in the lower area until debris handling ceases above.

All scrap lumber, waste material, and rubbish shall be removed from the immediate work areas as the work progresses.

Waste material will be disposed of in an approved solid waste landfill.

All solvent waste, oily rags, and flammable liquids shall be kept in fire resistant covered containers until removed from work site.

Emergency Lighting System

Some structures may be equipped with emergency lighting systems which would permit uninterrupted service in critical areas and exit facilities under adverse conditions. In order to ensure that these emergency lighting systems are functioning properly, the emergency system shall be checked monthly. The tests should be conducted at times which would cause least disruption.

Power Machinery and Equipment

Supervisors shall allow only experienced personnel to operate power machines and shall give proper instruction in their safe operation.

Power saws, shapers, and other equipment must have the proper type safeguards in place when the equipment is being operated.

Protective eye equipment shall be used when operating machines which could cause particles to be discharged in such manner as to cause injury.

All electrical machinery shall be properly grounded and control switches shall be located at the point of operation best suited to control the equipment.

Power Mowers and Related Equipment

Area to be cut should be examined for loose objects such as tins, pieces of wire, or other objects. Serious injury can result from objects thrown by a rotating blade. The following precautions shall be observed:

- a. The engine will be cut off when fueling.
- b. Keep hands and feet from under machine.
- c. No smoking when filling machine.
- d. Fuels will be carried in approved safety cans.
- e. Avoid slopes that are too steep for machine, whether using a push mower or riding mower.
- f. Suitable foot, eye, and head protection should be worn when operating power mowers.

Use of Ladders

Prior to using a ladder, an inspection of uprights and ladder shoes should be made. In addition, the rope on extension ladders should be inspected.

Step ladders should be checked for unsafe hinges as well as steps and uprights.

Only a clear type varnish or shellac should be used in the painting of ladders.

Before a new ladder is placed in service, it shall be equipped with rubber shoes and wall grips.

When straight or extension ladders are used on hard surfaces, they must be held or firmly lashed.

The practice of lashing sections together in order to lengthen the ladder is strictly forbidden.

Ladders should be so placed that they offer the least possible impediment to the public or to traffic.

The person using the ladder will avoid over reaching. Move the ladder rather than take a chance on the ladder overturning to the side.

Grinders and Buffers

Considerable eye damage results from improper use of grinders. In order to prevent this danger, wheels will not be used without the metal guard and eye shields in place. In addition, prior to use, the wheels should be checked out for scoring or cracking.

When new wheels are installed, the RPM capacity of the wheels should be checked against the maximum RPM capacity of the motor.

A face shield will be hung on or near grinder and is to be worn by any person operating the grinder.

Work rests shall be adjusted close to the wheel with a maximum opening of 1/8 inch.

High Pressure Gas Cylinders

Gas cylinders may contain up to 3,000 psi pressure. Accidents may occur when the heads of these cylinders are broken off. Escaping gases create jet action of sufficient force to propel the cylinders through the walls of building, creating fires and maiming persons in the vicinity. Flammable gases create additional hazards of catalytic action or oxidation under certain conditions.

Improper storage, movement and use of gas cylinders is considered one of the major safety hazards on the campus. Cylinders shall be properly segregated and securely fastened in storage, movement, and use.

Operators must ensure that head caps are firmly in place when not in use.

Use only the proper gauges when metering the gases.

Pressurized Containers

Modern pressured packaging of such commodities of spray paint induces unique safety hazards of domiciles and other areas where used. "Empty" pressurized containers, many of which contain flammable materials, leave a residue of gas and material which, if improperly disposed of, may prove injurious.

The following precautions should be followed when using or disposing of these containers:

- a. Observe the cautions printed on the can-do not use flammable material near open flames.
- b. Empty pressurized cans should not be placed in trash containers or waste baskets. Place them next to such containers so that custodial personnel may dispose of them safely.
- c. Do not throw cans in incinerators. Sudden application of heat can cause a violent explosion.

Smoking Regulations

Smoking in buildings is prohibited for one or more of the following reasons:

- a. To reduce the danger of fire.

b. To prevent annoyance to non-smokers.

c. To prevent damage to floors, carpets, and furnishings which inevitably goes with smoking.

It is expected that faculty, staff, and students will abide by these regulations.

Smoking is prohibited at all times inside the building.

Social Activities

Organizations or departments desiring to hold large social activities on campus will, at the time of requesting permission from their appropriate person, notify the Safety Officer.

In considering decorations for places of public assembly, no flammable decorations or combustibles, including draperies, shall be used.

No approval will be granted for the use of decorations until such time that they have been demonstrated to be fire resistant.

Authorized decorations permanently hung shall be tested and inspected at 30-day intervals by the individual responsible for the building or his appointed representative.

The use of open flames for lighting in places of public assembly is a potential fire hazard which must be controlled.

Record Keeping Requirements

Accident Reporting

All accidents to employees, even though they may be considered of minor nature and may result in no lost time or medical expense, are to be reported.

Employees shall be constantly reminded that all accidents occurring on the job should be reported immediately to their Supervisor or Department Head. In case of medical complications after the date of the accident, if all accidents are reported, it will not be necessary for the injured employee to then prove that the accident did occur while on the job.

Purpose of the Accident Report

Employee Accidents

The submission of an Accident Report is necessary to document the circumstances under which any resulting claim may be properly processed or defended. For the most part the information requested on the Accident Report is required by State and Federal law and therefore it is imperative that it be completed. Most of the information contained on the forms provides detailed information as to the cause of the accident. This information is very valuable in the total safety program in assisting departments with the establishment of training programs and rendering assistance which will promote accident prevention.

Student Accidents

Accident reports on students shall be handled in the same manner as employees. Accident reports on students are necessary to determine particularly hazardous areas on campus so that corrective methods may be taken to avoid these accidents.

Who Should Prepare The Accident Report

The Supervisor, Department Head, or the person rendering first aid, or who, at the time of the accident, was in charge of the persons instruction or other activities is responsible for the preparation and submission of the Accident Report for all employees injured while at work. Generally, this task should not be performed by the Safety Officer, unless the Safety Officer was actually present at the time of the accident.

Occupational Safety and Health Act Requirements

The following Safety and Health records are required by the Occupational Safety and Health Act.

- A. Log of Occupational Injuries and Illnesses, OSHA Form No. 200
- B. Summary of Occupational Injuries and Illnesses, OSHA Form No. 200
- C. Supplementary Record of Occupational Injuries and Illnesses,
OSHA Form No. 101

Copies of the Summary of Occupational Injuries and Illnesses, OSHA Form No. 200 must be posted in prominent places such as the Administration Building during the entire month of February of each year.

Records described above must be retained for a period of 5 years following the end of the year to which they relate.

Reporting Fatalities and Multiple Hospitalizations

Reports of fatalities and/or multiple hospitalizations must be reported to the Area Director of the Occupational Safety and Health Administration, U.S. Department of Labor within 48 hours after the occurrence. The Regional Office of Occupational Safety and Health Administration serving Virginia is listed below:

Regional Office Occupational Safety and Health Administration, Gateway Building, Suite 2100, 3535 Market Street Philadelphia, Pennsylvania 19104 Phone: (215) 596-1201

The initial report may be made by telephone or fax and must relate the circumstances of the accident, the number of fatalities, and extent of any injuries. The Regional Area Director of Occupational Safety and Health Administration may require additional reports in writing or otherwise as he deems necessary concerning the accident.

Training

Training films, slides, etc., are available from many sources for Department Heads or Members of a Safety Committees. The Safety Officer will assist in locating safety training materials if necessary.

Committees

Committees are appointed in various departments throughout the campus. Departmental committee members are responsible for conducting monthly safety inspections, assuring compliance with all standards and regulations, and maintaining a sound working relationship with the Safety Officer. Safety inspection checklist forms are available to the chairman of each committee. Upon completion of the inspection, the checklist is submitted to the Safety Officer and becomes the inspection report which is used to correct violations.

Inspection and Checklist Systems

Purpose

The primary purpose of the checklist system is to assure uniformity of inspections. There are various inspections that will be conducted at regularly scheduled intervals. The Safety Officer will conduct or cause to be conducted safety and fire inspections of all community college buildings to insure compliance with current State and Federal regulations.

Inspection Frequency and Procedure

In addition to semi-annual safety inspections, the Safety Officer will conduct or cause to be conducted the following inspections:

- a. Emergency light systems
- b. Fire extinguishers
- c. Fire alarm systems
- d. Automatic Sprinkler Systems
- e. Fire hydrants
- f. Standpipes

Inspection reports will be forwarded to the president who will forward a copy of the report to the Superintendent of Buildings and Grounds. Within thirty days of the Superintendent of Buildings and Grounds will return the report to the President, with the corrective action taken or planned. The report will then be forwarded to the Safety Officer where it will be placed on file.

Walking-Working Surfaces

Walking Surfaces

Surfaces of floors in the work place, passageways, storerooms, and service rooms shall be kept in good repair, free from holes, splinters and loose boards so that they may be kept clean and orderly.

Aisles and passageways shall be kept clear. There shall be no obstruction across or in aisles that could create a hazard. Permanent aisles and passageways shall be appropriately marked.

Special Purpose Flooring and Surfaces

Mats, gratings, false floors, or other non slip materials shall be used in refrigerated compartments, wet process areas and other locations where drainage is necessary.

Floor Openings and Floor Hole Protection

Floor openings and floor holes such as ladder ways, hatchways, floor chutes, manholes, into which a person can accidentally walk, shall be guarded by either a standard railing with a toe board on all exposed sides or a floor hole cover of standard strength hinged in place. When cover is not in place, it shall be attended or protected by a removable standard railing. Temporary floor openings shall be attended or protected by standard railings.

Open-Sided Work Surfaces

Open-sided floors, platforms, and runways 4 feet or more above the floor or ground level shall be guarded by a standard railing on all open sides with a toe board to prevent falls of materials.

Special hazards created by open-sided floors in close proximity to dangerous equipment, tanks or pits containing dangerous chemicals shall be guarded with a standard railing and toe board regardless of height.

Specifications for Railings

Standard Railings

Shall consist of top rail, intermediate rail and posts, and shall have a vertical height of 42 inches from upper surface of top rail to floor. The intermediate rail shall be half way between the top rail and the floor.

Wood Railings

The posts shall be at least 2 x 4 inch stock, space not to exceed 6 feet with top and intermediate rails of at least 2 x 4 inch stock. Post may be spaced on 8 foot centers if top rail is made of two right angle pieces of 1 x 4 inch stock. The top rail shall be smooth-surfaced throughout its length.

Structural Steel Railings

The posts, top and intermediate railings shall be at least 1-1/2 inches nominal diameter with posts spaced not more than 8 feet on centers.

Load Strength

The anchoring of posts and framing of members for railings of all types shall be of such construction that the completed structure shall be capable for withstanding a load of at least 200 pounds applied in any direction at any point of the top rail.

Heavy Stresses

Additional strength should be provided by use of heavier stock, and closer spacing of posts and bracing when railings are subject to heavy stress.

Stair Railing

A stair railing shall be of construction similar to the standard railing but the vertical height shall not be more than 34 inches or less than 30 inches from the upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

Handrails

Mounting of handrails shall be directly on a wall or partition using brackets on the lower side of the handrails so as to offer no obstruction to a smooth surface along its top sides.

a. Height of handrails shall be not more than 34 inches from the upper surface of handrail to surface of tread, in line with the face of the riser or to the surface of the ramps.

b. Handrails of hardwood shall be at least 2 inches in diameter. Handrails of metal pipe shall be at least 1-1/2 inches in diameter.

c. Brackets shall be of such length as will give clearance of at least 3 inches between handrail and wall or any projection and spacing shall not exceed 8 feet.

d. Mounting of handrails shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

Stairway Railing Requirements

Every flight of stairs having four or more rises shall be equipped with standard stair railings or standard handrails. The width of the stair, measured clear of all obstructions except handrails, shall determine railing requirements.

Stairways less than 44 inches wide with both sides enclosed require at least one handrail; with one open side, at least one stair railing on the open side; with both sides open, one stair railing on each side.

Stairways more than 44 inches wide but less than 88 inches wide require one handrail on each enclosed side and one stair railing on each open side. Stairways more than 88 inches wide shall be equipped similarly with one intermediate stair railing approximately midway of the width.

Winding stairs shall be equipped with a handrail offset where the treads are less than 6 inches wide.

Specifications for Toe boards and Other Protection

Standard toe boards shall be 4 inches in vertical height from its top edge to the level of the floor, platform, runway or ramp securely fastened with no more than 1/4 inch clearance above floor level. It may be made of any substantial material either solid or with openings not over 1 inch in greatest dimension.

Where material is piled to such height that a standard toe board does not provide protection, paneling from floor to the top rail, shall be provided.

Floor and Roof Loading

Posting of Live Loads

Conspicuous posting of live loads shall be required in every building or other structure used for industrial or storage purposes.

Restriction of Loading

It shall be "unlawful" to place, or cause or permit to be placed, on any floor or roof of a building, or other structure, a load greater than that for which such floor or roof is approved by the building official.

Water Absorbent Commodity Storage

Safety floor loads shall not be exceeded. For water absorbent commodities, normal floor loads should be reduced to take into account the added weight of water which can be absorbed during fire fighting operation.

Ladders

Loading

The minimum design live load shall be a single concentrated load of 200 pounds. The number and position of additional concentrated live load of units of 200 pounds each, as determined from anticipated usage of the ladder, shall be considered in the design. OSHA 1910.27 a

Slope of Pitch

Portable (rung and cleat) non-self-supporting ladders shall be erected at a pitch of 75 ½ degrees for maximum balance and strength. A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical support equal to 1/4 of the working length (the length along the ladder between the foot and to support) of the ladder.

Stability

Ladders shall be placed so as to prevent slipping, or they shall be lashed, or held in position.

Inspection and Tagging

Ladders shall be inspected frequently and those with defects shall be removed from service and tagged or marked "Dangerous" - "Do Not Use."

Dressing

All wood parts shall be smoothly machined and dressed on all sides so as to be free from sharp edges and splinters.

Defective Equipment

The use of ladders with broken or missing rungs, cleats, steps or side rails or other faulty equipment is prohibited.

Repairs

Ladders with improvised repairs shall not be used.

Access to Landings

Ladder rails shall extend at least 36 inches above landings.

Portable Wood Ladders

Ladders provided by the employer shall be in accordance with American National Standards Institute "Safety Code for Portable Wood Ladder, A14.1" and Part 19910.25 of the Federal Occupational Safety and Health Act Federal Register.

Construction and testing requirements are different for each type ladder because of the variety of materials and hardware used; therefore, additional detailed specifications for ladders described herein or for other special type ladders not covered, if required, shall be obtained from the reference standard.

Portable Metal Ladders

Ladders provided by the employer shall be in accordance with United States of America Standard "Safety Code for Portable Metal Ladders, A14.2" Construction, design and testing requirements are different for each type ladder because of the variety of material and hardware used; therefore, additional detailed specifications for ladders herein or for other special type ladders not covered, if required, shall be obtained from the reference standard.

Fixed Ladder

This section is intended to cover general requirements for fixed ladders of the individual rung and rail type construction. Because of the different design and specification requirements, more detailed information, if needed, should be obtained from United States of America Standard "Safety Code for Fixed Ladders, A14.3."

Pitch of Slope Angle

The preferred pitch of fixed ladders shall be considered to come in the range of 75 degrees to 90 degrees with the horizontal. Ladders having a pitch in excess of 90 degrees with the horizontal shall not be permitted.

Construction of Fixed Ladders

Ladders shall be designed to support a live load of at least 200 pounds. Rungs, cleats, and steps shall be free of splinters, sharp edges, burrs, or projections. Side rails which might be used as a climbing aid shall be without sharp edges, burrs, or projections. When different types of materials are used in the construction of a ladder, the materials used shall be so treated as to have no deleterious effect, one upon the other. Adequate means shall be taken to protect dissimilar metals from electrolytic action when such metals are joined.

Rungs, cleats, side rails, fastenings, and splicing; Refer to United States of America "Safety Code for Fixed Ladders, A14.3" for detailed specifications as to dimensions and construction features.

Maintenance and Preservation

Ladders shall be maintained in safe condition. Ladders shall be inspected regularly, with the intervals between inspection being determined by use and exposure.

Landing Platforms and Access to Fixed Ladders

Platforms

When ladders are used to ascend to heights exceeding 20 feet, landing platforms shall be provided for each 30 feet of height or fraction thereof, except that, where no cage, well, or ladder safety device is provided, landing platforms shall be provided for each 20 feet of height or fraction thereof.

Platform Construction

Landing platforms shall be equipped with standard railings and toe boards so arranged to give safe access to the ladder. Platforms shall be not less than 24 inches in width and 30 inches in length.

Access

The step-across distance from nearest edge of the ladder to the nearest edge of equipment or structure shall be not more than 23 inches, or less than 2-1/2 inches.

Means of Egress

General Applications

Exit Facilities (Required Exit Capacity)

The capacity of occupancies, other than dormitories and educational occupancies, shall be one per 100 square feet across floor area. For special purpose occupancy other than dormitories and educational occupancies and open structures, the capacity shall be the maximum number of persons to occupy the area under any probable condition.

Measurement of Width of Means of Egress

Means of egress shall be measured in units of exit width of 22 inches. Fractions of a unit shall not be counted, except that 12 inches added to one or more full units shall be counted as one-half a unit of exit width. Units of exit width shall be measured in the clear at the narrowest point of the means of egress except that a handrail may project inside the measured width on each side not more than 3-1/2 inches and a stringer may project inside the measured width not more than 1-1/2 inches. An exit or exit access door swinging into an aisle or passageway shall not restrict the effective width thereof at any point during its swing to less than the minimum widths hereafter specified.

Capacity of Exits

The capacity of a unit width shall be as follows:

Doors leading outside the building at grade or not more than 21 inches above or below grade One unit for 60 persons

Horizontal exits One unit for 100 persons but not more than 50% of exit capacity

Marking Exits

Signs designating exits or ways of travel thereto shall be provided according to BOCA Code. Exit lighting shall be provided where natural illumination is insufficient.

Swing of Doors

An exit door shall be of the swinging type. It shall swing with exit travel except when serving a story or room having a population of not more than 50 persons, provided there are not high hazard contents.

A door giving access to a stairway shall swing in the direction of exit travel. A door during its swing shall not block stairs or landings and in no case in new buildings shall any door at any point in its swing reduce the effective width of stair or landing to less than 20 inches, nor when open interfere with the full use of the stairs.

Locking of Exit doors

An exit door shall be so arranged as to be readily opened from the side from which egress is to be made at all times when the building served thereby is occupied. Locks, if provided, shall not require the use of a key for operation from the inside of the building.

A latch or other fastening device on an exit door shall be provided with a knob, handle, panic bar, or other simple type of releasing device, the method of operation for which is obvious, even in the darkness.

Maintenance

Every required exit, way of approach thereto and way of travel from the exit into the street or open space, shall be continuously maintained free of all obstructions and impediments to full instant use in the case of fire or other emergency.

Emergency and Exit Lighting

Illumination of means of egress shall be provided for every building and structure where artificial lighting is provided for normal use and occupancy of the building or structure.

Every exit and the necessary ways of exit access thereto shall be illuminated to facilitate egress when natural lighting is insufficient. Such illumination shall be continuous during the time that the conditions of occupancy require that the means of egress be available for use.

Exit signs shall be suitably illuminated by a reliable light source giving a value of not less than 5 foot candles on the illuminated surface.

Ramps and Means of Egress

A ramp may be used as an exit or exit component in a means of egress if it meets the following requirements;

a. Class A ramps shall have a width of 44 inches or greater, slope of 1 in 10, 12 feet maximum height between landings, with a capacity in persons per unit for exit width of 60 in the down direction and 45 in the up direction. Life Safety Code 5-2.5.2

b. Class B ramp shall be 30 to 44 inches wide, 1 in 8 slope, maximum height between landings of 12 feet, and a capacity in persons per unit of exit width of 45 persons in either down or up direction. Life Safety Code 5-2.5.2

c. A ramp and the platforms and landings associated therewith shall be designed for not less than 100 pounds per square foot live load.

D. The slope of ramps shall not vary between landings. Landings shall be level and change of direction of travel if any, shall be made only at landings.

E. A ramp shall have a non slip surface.

Construction requirements and details for guards and handrails vary according to class of ramp and size of occupancy.

Doors

Any swinging fire doors and any door in stair enclosure walls designed to prevent the spread of fire shall be provided with approved positive latching means to hold it in the closed position against the pressure of expanding fire gases. Enclosure door shall not at any time be secured in the open position.

NOTE: EXCEPT FOR CERTAIN ELECTRICALLY ACTIVATED DOOR RELEASES AN ENCLOSURE DOOR SHALL BEAR A SIGN READING SUBSTANTIALLY AS FOLLOWS: "FIRE DOOR--KEEP DOOR CLOSED."

Minimum Number of Exits

Every room or space with a capacity of over 50 persons or over 1,000 square feet in area shall have at least 2 doorways as remote from each other as practicable. Such doorways shall provide access to separate exits, but, where egress is through corridors, may open upon a common corridor leading to separate exits in opposite directions.

Travel Distance to Exits

Except in open plan and flexible plan buildings, travel distance to an exit from any point in a building without a complete automatic fire extinguishing system shall not exceed 150 feet, and shall not exceed 200 feet in any building.

Access to Exits

Any corridor shall not be less than 6 feet wide in the clear. Doors which swing into an exit access corridor shall be recessed to prevent interference with corridor traffic; any doors not so recessed shall open 180 degrees to stop against the wall. Doors in any position shall not reduce the required minimum 6 foot corridor width.

Exterior Corridors or Balconies

Where exterior corridors or balconies are provided as means of exit, they shall open to the outside air except for railing or balustrades, with stairs or level exits to grade not over 250 feet apart, so located that an exit will be available in either direction from the door to any individual room or space, with dead ends not to exceed 20 feet. If balconies are enclosed by glass or in any other manner, they shall be treated as interior corridors. The floors of balconies (exterior corridor) and stairs shall be solid, without openings, and shall comply with requirements for outside stairs as regards balustrades or railings, width and pitch of stairs, and other details, but are not required to be shielded from fire within the building by blank walls, wired glass windows or the like where the stairs are located on the side to balcony or corridor away from the building and are separated from the building by the full required width of the balcony or corridor. Regardless of other provisions, exterior balconies and stairs may be of the same type of construction as the building which they serve.

Exit Arrangement

Exits shall be so arranged that at least 2 separate exits will be available from every floor area. Exits shall be as remote from each other as practicable, so arranged that there will be no pockets or dead ends of appreciable size in which occupants may be trapped, and in no case shall any dead-end corridor extend more than 20 feet beyond the stairway or other means of exit there from. Every classroom or room used for educational purposes or student occupancy, below the floor or exit discharge, shall have access to at least 1 exit which leads directly to the exterior at level of discharge, without entering the floor above.

Door Closure

All Exit doors shall be kept normally closed or protected by an approved self-closing assembly.

Door Swing

If a room or space is subject to occupancy by more than 50 persons, exit doors shall swing out. Only 1 locking or latching device shall be permitted on a door or a leaf or a pair of doors.

Panic Hardware

Any interior door and any room door subject to use by 100 or more persons shall be operated by bars or other panic hardware devices except that a door leading directly to the outside from a classroom occupied by less than 100 persons be equipped with the same knob-operated schoolhouse type lock as is used on classroom doors leading to corridor, with no provision whatsoever for locking against egress from the classroom.

Lighting and Signs

All educational buildings shall have adequate exit illumination in accordance with Section 5-10 of the 1985 edition of the Life Safety Code. Flexible plan and open plan buildings and buildings designed for night occupancy and portions of buildings having interior and windowless rooms, area, and corridors, shall have Type 1 emergency exit illumination. All educational buildings shall have signs designating the location of exits or the path of travel to reach them.

Windows for Rescue and Ventilation

Except in buildings with complete sprinkler protection every room or space used for classroom or other educational purposes or normally subject to student occupancy, unless it has a door leading directly to the outside of the building, shall have at least one outside window which can readily be used for emergency rescue or ventilation purposes.

Interior Corridors

Every interior corridor shall be of construction having not less than a 1 hour fire resistance rating, and all openings therein protected accordingly. Room doors may be 1-3/4 inch solid bonded core wood doors or the equivalent. Such corridor protection shall not be required when all classrooms served by such corridors have at least one door directly to the outside or to an exterior balcony or corridor. Any interior corridor more than 300 feet in length shall be divided into sections not to exceed 300 feet in length by smoke barriers, consisting of partitions with smoke stop doors therein. Such partitions shall be continuous through any concealed space such as between the hung ceiling and the floor or roof above. Doors in smoke barriers shall be at least the equivalent of metal, metal covered, 1-2/3 inch solid bonded core wood or approved treated wood construction, with clear wire glass panels. Such doors shall be self-closing and shall be either single or in pairs. They shall close the opening completely with only such clearance as is reasonable necessary for proper operations.

Automatic Sprinkler Protection

Every portion of educational buildings below the floor or exit discharge (no door leading directly to the exterior) shall be protected with complete automatic sprinkler protection.

Hazardous Areas

An area used for general storage, boiler or furnace rooms, fuel storage, janitors closets, maintenance shops including woodworking and painting areas, laundries and kitchens, shall be separated from other parts of the building with construction having not less than 1-hour fire resistance rating and all openings shall be protected with self-closing fire doors, or such area shall be provided with automatic sprinkler protection. Where the hazard is severe, both the fire-resistive separation and automatic sprinklers shall be provided.

POWERED PLATFORMS, MANLIFTS AND VEHICLE-MOUNTED WORK PLATFORMS

Elevators

Test and Certification of Periodic Inspection

Existing installations, and new installations, after being placed in service, shall be subjected to periodic inspection and tests at regular intervals to determine that the equipment is in safe operating condition and as required by the authority having jurisdiction.

Loading

Freight elevators shall not be loaded to exceed their rated load as specified on the capacity plate, and shall not be used to carry passengers.

Occupational Health and Environment

Occupational Noise Exposure

In areas where noise levels are above the prescribed permissible levels (90 DBA), engineering and/or administrative controls will be employed to reduce the sound levels to within prescribed levels. Where such controls are not feasible, personal protective equipment will be provided and used.

Gases, Vapors, Fumes, Dusts, and Mists

Where employees are exposed to harmful concentrations of gases, fumes, vapor, dust, and mist such as those liberated or generated by processes such as welding, heating, cutting, plating, degreasing, etc., precautions shall be taken to reduce the exposure to acceptable levels. Such precautions may include a properly designed and installed ventilation system, personal protective equipment, or rotation of personnel to minimize individual

exposure. Where contaminant concentrations are flammable, approved explosion proof equipment shall be used. This equipment shall meet the requirements for the worse case of air contamination.

The amount of ventilation provided shall be in accordance with the following guide:

Air space in room in Cubic Feet of outside

air per minute per person

Less than 200 20

201 - 500 15

501 - 1000 10

Over 1000 5

Provisions should be made for the entrance of clean, tempered air into the building to replace air removed by exhaust systems. The volume flow of such make-up air should be equal to or greater than the exhaust rate. Inlets should be arranged and located so that workers are not subjected to drafts of air having a temperature of more than 10 F. Below room temperature. The intake for the air supply shall be so located as to prevent insofar as possible the intake of contaminants from exhaust systems, process vents, or other sources. Where artificial ventilation is necessary for the maintenance of comfortable working conditions, ventilation systems shall be installed, and they should provide:

A. Thermal comfort at 70 to 80 F. (20 -25 C)

B. 30 to 60 percent relative humidity, and

C. Air movement of no more than 25fpm.

Hazardous Materials

The Hazard Communication Standard applies to this section. This section is not intended and does not meet the requirements of the Hazard Communication Standard.

Gases, Vapors, Fumes, Dusts, and Mists

Control Measures

Feasible administrative or engineering controls such as work rotation, time limitations, process or local exhaust ventilation and/or process isolation, must first be determined and implemented in all cases. In cases where protective equipment in addition to other measures is used as the method of protecting the employee, such protection must be approved for each specific application by a competent industrial hygienist or other technically qualified source.

Testing of Dangerous or Potentially Dangerous Atmospheres in Confined Work Spaces

Before employees are initially permitted to enter any confined work space (tank, underground structure, vat, etc.), the atmosphere within the space to be entered shall be tested by a competent person to determine the concentrations of flammable vapors or gases, toxic atmospheric contaminants and oxygen.

Control Measures

If such tests indicate that the atmosphere in the space to be entered contains (1) a concentration of flammable vapor or gas greater than 10 percent of the lower explosive limit, and/or

(2) a concentration of toxic contaminants above the threshold limit value and/or (3) less than 16.5 percent oxygen, appropriate control measures shall be instituted. (Control measures may consist of forced or natural ventilation, use of personal protective equipment, administrative controls or a combination of these and other effective control techniques.

In those circumstances where a man must enter an area before a safe level is achieved, such as setting up ventilation equipment, etc., approved personal protective equipment for the hazards involved shall be provided and worn.

Emergency Procedures

In all cases when an employee is stationed outside a compartment tank, or space as a tender for the men working inside, he shall have immediately available for emergency use all necessary personal protective equipment equivalent to that required for the men inside. He shall wear the personal protective equipment if he is exposed for prolonged periods which are hazardous to his health. Employees entering a toxic or flammable atmosphere shall be provided with and use an adequate, attended lifeline.

Combustible Dust

Where combustible dust accumulates or is present in suspension in the air, electrical installations and equipment shall be suitable for use in atmospheres containing the combustible dust. Precautions should be taken to minimize the possibility of ignitions by static electrical sparks, through static grounding of machines or equipment, grounded metal comb for belts, humidification or other effective means. Precautions to eliminate other sources of ignition should also be followed.

Oxidizing Agents

Storage

Oxidizing agents shall be stored only in rooms or buildings of fire resistive construction. They shall be separated from supplies of fuels, flammable materials, and acids. Solutions of oxidizing agents shall be placed only in non-absorbent and noncombustible containers. Residue in discarded containers should be burned out in the open and the container should not be re-used. Spills must be cleaned up immediately, and should not be salvaged.

Protective Clothing

Employees handling oxidizing agents should wear flame proof clothing as minimum protection. The clothing should be stored in metal containers when it becomes contaminated. Clothing shall be laundered frequently to minimize the hazard.

Flammable and Combustible Liquids

General

Flammable liquids shall mean any liquid having a flash point of below 140 and having a vapor pressure not exceeding 40 pounds per square inch (absolute at 100 F. and may be subdivided as follows: Class I liquids shall include those having flash points below 100 F. and may be subdivided as follows: Class IB shall include those having flash points below 75 F. and having a boiling point at or above 100 F. Class IC shall include those having flash points at or above 75 F. and below 100 F. Class II liquids shall include those having flash point at or above 100 F. and below 140 F.

Combustible Liquids

Combustible liquids shall mean any liquid having a flash point at or above 140 F. (60 C), and shall be known as Class III liquids. Class IIIA shall include those having flash points at or above 140 F. (60 C) and below 200 F.

NOTE: The upper limit of 200 F. should not be construed as indicating that liquids with high flash points are non-combustible.

Sources of Ignition

In locations where flammable vapors may be present precautions shall be taken to prevent ignition by eliminating or controlling sources of ignition. All electrical equipment and wiring shall be of a type specified by, and shall be installed in accordance with the National Electric Code, (N.F.P.A. 70). To prevent ignition from static electricity, flammable liquids shall not be dispensed unless the nozzle and container are electrically interconnected. Smoking shall be prohibited except in designated localities. "NO SMOKING" signs shall be conspicuously posted where hazard from flammable liquid vapors is normally present. Heating shall be by steam or hot water only. Open flames shall not be permitted in flammable or combustible liquid storage areas. Hot work such as welding or cutting operations, use of spark-producing tools, and chipping operations shall be permitted only under supervision of a responsible individual in charge. The individual in charge shall make an inspection of the area to ensure that safety procedures are followed for the work specified. Additional information on fire prevention and protection as well as specific supervisory responsibilities for safety of hot work outlined in National Fire Protection Association, Section 51B should be reviewed and applied as applicable.

Flammable or Combustible Liquid Storage

Flammable or combustible liquids shall be stored in tanks or closed containers, approved for the specific purpose by class of liquid, volume and location. Reference shall be made to the specific code for situations not covered below.

Portable Containers

Safety cans shall be used as containers for storage and/or handling of flammable liquids in quantities of 5 gallons or less.

Drum Storage

Metal drums acceptable for the interstate shipment of flammable liquids shall be used for the storage and/or handling of flammable liquids in quantities of more than 5 gallons but less than 60 gallons.

Storage Limitations Outside of Cabinets

Not more than 25 gallons of flammable liquids shall be stored outside of a storage cabinet or inside storage room.

Storage Cabinets

Not more than 60 gallons of flammable liquid shall be stored in a storage cabinet.

Inside Storage Rooms

Flammable liquids in excess of 60 gallons shall be stored outside or in an inside storage room having a fire resistance of at least 1 hour, sills at all openings of at least 4 inches in height, liquid tight floors, electrical

equipment, if any suitable for hazardous locations, a gravity or mechanical exhaust ventilation system, and portable fire extinguishing equipment having a rating of at least 20 B:C.

Tank Storage

Storage tanks shall be adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying or atmospheric temperature changes. Emergency venting shall be provided that will relieve excessive internal pressure caused by exposure to fires.

Special Extinguishing Equipment

Special extinguishing equipment shall be provided as the need is indicated by the special hazards of operation, dispensing or storage.

Containers Storage-Indoor Liquid Warehouses

Storage buildings located less than 50 feet from another building shall have the exposing wall blank and of a fire resistance of at least 2 hours. Containers in piles shall be separated by pallets or dunnage where necessary to provide stability and to prevent excessive stress on container walls. No pile shall be closer than 3 feet to the nearest beam, chord, girder or other obstructions, fire protection equipment or fire door. Aisles at least 3 feet in width shall be provided where necessary for access to doors, windows or fire protection equipment.

Fire Protection-Container Storage

At least one portable fire extinguisher having a rating of not less than 20-B units shall be located not less than 10 feet, nor more than 25 feet, from any flammable liquid storage area.

Flammable and Combustible Liquid Handling

Equipment shall be designed and arranged to prevent the unintentional escape of liquids and vapors and to minimize the quantity escaping in the event of accidental release. Flammable or combustible liquids shall be kept in closed containers when not in use, and transferred into vessels or containers within buildings only through a closed piping system, from safety cans or by means of a device drawing through an approved self-closing valve. Transferring any means of air pressure on the container shall be prohibited. Areas in which flammable or combustible liquids are transferred from one tank or container to another shall be separated from other operations by at least 25 feet or by construction having a fire resistance of at least one hour.

Ventilation

Enclosed buildings shall be ventilated at a rate of not less than one cubic foot per minute per square foot of solid floor area. Ventilation shall be arranged to include all floor areas and pits where flammable vapors may collect.

Spillage and Drainage

Where flammable or combustible liquids are used or handled, means shall be provided to dispose promptly and safely of leakage or spills. Emergency drainage systems, if connected to public sewer or discharged into public waterways, shall be equipped with traps or separators.

Fire Protection

Portable fire extinguishers and control equipment shall be provided in such quantities and types as are needed for the special hazards of operation and storage.

Acids, Caustics and Other Harmful Substances

Carboys and Drums

Carboys shall be provided with inclinators, or the acid shall be withdrawn from the carboys by means of pumping without pressure in carboy, or by means of hand operating siphons. Carboys and drums should be stored in a cool, dry place away from the direct rays of the sun and from heat source. Empty carboys should be inverted and drained thoroughly. Carboys containing acids should be elevated from the floor to keep the bottom of the crates dry and does not touch the glass neck or the wooden hoods of the lower carboys. At least one side to each carboy must be exposed to permit detection of leakers. Generally, when carboy shipments are received, the stoppers should be loosened carefully and then re-tightened.

Protective Equipment

Face shields, aprons, and rubber gloves shall be provided for workmen handling acids or caustics.

Emergency Showers

Suitable facilities for quick drenching or flushing of the eyes and body shall be provided within 25 feet of the work area and kept accessible for immediate emergency use.

Compressed and/or Liquefied Gases

Cylinder Storage

Storage rooms should be dry, cool, and well ventilated with enclosures having a fire resistance of at least 1 hour. Where flammable gases are stored, the storage room shall have all electrical equipment and wiring installed and maintained in accordance with Article 501 of the National Electrical Code. Cylinders should be grouped by type of gas and the groups segregated as to compatibility. Charged and empty cylinders should not be stored at temperatures above 125 F. in indirect sunlight, or subjected to artificially created low temperatures. Where removable caps are provided for valve protection, such caps should be kept on cylinders at all times except when cylinders are in use. Cylinders shall be properly supported to prevent them from being knocked over. Cylinders should be protected against tampering and damage. Oxygen cylinders shall be separated from fuel gas cylinders a minimum distance of 20 feet or by a non-combustible partition having a fire resistance of at least 1 hour. Cylinders shall not be stored near combustible substances. Cylinders should be constructed and maintained in accordance with the Department of Transportation regulations. Cylinder valves shall be kept closed except when the cylinder is in active use.

Storage and Handling of Specific Gases - Liquefied Petroleum Gases (Flammable)

Containers and first stage regulating equipment, if used, shall be located outside of buildings (exceptions provided). Each individual container shall be located with respect to the nearest important building or group of buildings. Filling of fuel containers for industrial trucks shall be performed outdoors not less than 25 feet from a frame building or wall opening.

Anhydrous Ammonia (Flammable)

Containers shall be located outside of buildings or in buildings or sections thereof specially provided for this purpose.

Acetylene (Flammable)

Acetylene shall not be generated, piped or utilized at a pressure in excess of 15 pounds per square inch gauge (30 pounds per square inch absolute). Acetylene cylinders shall be stored and used in an upright position. Quantities of acetylene exceeding 2,000 cubic feet shall be stored in a special building or a separate specially constructed room, having a fire resistance of at least 1 hour. At least one wall shall be an exterior wall.

Hydrogen-Liquefied (Flammable)

Special storage rooms shall have a fire resistance of at least 2 hours. Openings into other parts of the buildings are prohibited. At least one wall shall be an exterior wall with explosion venting.

Oxygen-Non-Medical

Oxygen cylinders shall be separated from fuel gas cylinders or combustible material a minimum distance of 20 feet or by a non-combustible barrier at least 5 feet high and having a fire resistance rating of at least 1/2 hour.

Fittings and Connections

Special attention shall be directed to special restrictions for certain gases which prohibit the interchange of fittings and hoses. Special threads and connections are designed for specific gases and equipment. Never force connections that do not fit. Threads on regulator connections must be the same as those on cylinder valve outlet.

Spray Finishing Using Flammable or Combustible Liquids, Combustible Powders or Oxidizing Materials

Locations

Spray finishing operations should be separated from other areas by construction having a fire resistance of at least 2 hours and provided with automatic sprinkler protection. Spray finishing operations should be confined to properly constructed spray booths, rooms, or tunnels.

Spray Booths

Spray booths shall be substantially constructed of steel, concrete, or masonry with interior surfaces smooth and continuous without edges and otherwise designed to prevent pocketing of residue and facilitate cleaning. Space within spray booth having a frontal area greater than 9 square feet should be protected with automatic sprinkler. A clear space of at least 3 feet around spray booths shall be maintained.

Electrical Equipment

There shall be no electrical equipment in any spraying area subject to deposits of combustible residues. Electrical equipment located in spraying area or within 20 feet of a spraying area shall be installed and maintained in accordance with Chapter 5 of the National Electrical Code.

Over spray and Residue

All Spraying area shall be kept free from the accumulation deposits of combustible residues. If there are excessive accumulations of residue in booths, ducts, dust discharge points or other spraying areas, then all spraying operations should be discontinued until conditions are corrected.

Ventilation

All spraying areas shall be provided with mechanical ventilation adequate to remove flammable vapor or mists to a safe location and to confine and control combustible residues so that life or property is not endangered.

Flammable and Combustible Liquid Storage

The quantity of flammable or combustible liquids kept in the vicinity of spraying operations shall not exceed the minimum required for a single shift. Original shipping containers shall not be subjected to air pressure for supplying spray nozzles.

Fire Protection

Sprinklers protecting spraying areas shall be maintained free of deposits.

Surface Preparation and Preservation

Steam Cleaning

All employees within range of the blast shall be protected by suitable face shields. Metal parts of the steam gun shall be insulated to protect the operator.

Toxic and Flammable Cleaning Solvents

When toxic solvents are used, the employer shall employ one or more of the following measures to safeguard the health of employees exposed to these solvents.

- a. The cleaning operation shall be completely enclosed to prevent the escape of vapor into the working space.
- b. Either natural ventilation or mechanical exhaust ventilation shall be used to remove the vapor at the source and to dilute the concentration of vapors in the working space to a concentration which is safe for the entire work period.
- c. Employees shall be protected against toxic vapors by suitable respiratory protective equipment and, where necessary, against exposure of skin and eyes to contact with toxic solvents and their vapors by suitable clothing and equipment.

Chemical Paint and Preservative Removers

Employees shall be protected against skin contact during the handling and application of chemical paint and preservation removers and shall be protected against eye injury by goggles or face shields. When using chemical paint and preservative removers which contain volatile and toxic solvent, such as benzyl acetate, appropriate face and eye protection shall be used. When using paint and rust removers containing strong acids or alkalis, employees shall be protected by suitable face shields to prevent chemical burns on the face and neck.

Power Tools (paint Removal)

Employees engaged in the removal of paints, preservatives, rusts or other coating by means of power tools shall be protected against eye injury by goggles or face shields. All employees using portable rotating tools for the removal of paints, preservatives, rusts, or other coatings shall be protected by respiratory protective equipment. Flame or heat shall not be used to remove soft and greasy preservative coatings.

Drying Equipment

Location

Industrial ovens and furnaces shall be safely located and protected from exposure to dip tanks, spray booths, storage or handling of flammable liquids, gases or solids, or exposure to the diffusion of flammable air-vapor mixtures. The use of combined dipping and baking units is permissible when adequately ventilated and interlocked. Ovens shall not adjoin recreational area, lockers, lunchrooms, etc., and shall not obstruct means of egress.

Explosion Venting

Ovens which may contain flammable air-gas mixture shall be equipped with unobstructed relief vents for freely relieving internal explosion pressures. Explosion relief vents should be located so that employees will not be exposed to injury.

Ventilation

Ovens in which flammable or toxic vapors are liberated shall be mechanically ventilated to outdoor atmosphere regardless of the type of heating equipment involved.

Safety Control Equipment

All ovens or dryers processing flammable materials, those involving flammable vapors or heated with combustible fuels, as well as auxiliary apparatus in close proximity to the oven dryers, shall be provided with fuel safety devices, ventilation controls, oven temperature controls, interlocks, etc., to properly safeguard the process.

Fire Protection

Ovens containing or processing flammable or combustible materials shall be equipped with automatic sprinkler protection.

Personal Protective Equipment

Protective Clothing

Safety shoes, shin guards, hard hats, aprons, gloves, sleeves, etc., shall be maintained in sanitary and reliable condition. Whenever the hazard of the processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered are such that injury or impairment in function of any part of the body may result, this equipment will be provided and used.

Eye and Face Protection

Eye and face protection shall be required where there is reasonable probability of injury that can be prevented by such protection. In such cases, employers or education authorities shall make conveniently available a type of protector suitable for work to be performed, and employees or students shall use such protectors. Pitted or scratched lenses reduce vision and seriously reduce protection. They shall be replaced immediately. Protectors shall be kept clean and in good repair. Suitable eye protection shall be provided where machines and operations present the hazard of flying objects, glare, liquids, injurious radiation or combination of these hazards.

Electrical Protective Devices

Devices for protection from electric shock such as insulated platforms, insulated tools, hot sticks and fuse pullers, etc., shall be provided and used by all persons exposed to such hazards.

Ear Protective Devices

After engineering controls have been instituted, but the sound levels still exceed the permissible level, a hearing conservation program shall be instituted. If these two controls fail to reduce the sound levels within the permissible level, then personal ear protective equipment shall be provided.

Emergency Apparatus and Equipment - Life Belts and Lifelines

Lifelines and belts shall be provided and used by work men exposed to the hazard of falling. They shall not be required to support loads in excess of their rated capacities. Every lifeline and safety belt shall be properly stored, maintained, and periodically inspected.

Respiratory Protection - Permissible Practice

In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic material). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used.

Employer Responsibility

Respirators shall be provided by the employer when such equipment is necessary to protect the health of the employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protective program which shall include the general requirements outlined in Section 1910.134 of the Federal Register.

Employee Responsibility

The employee shall use the provided respiratory protection in accordance with instructions and training received. The employee shall guard against damage to the respirator and report any malfunction of the respirator to the responsible person.

Selection and Care of Respirators

Respirators shall be selected on the basis of hazards to which the worker is exposed. The user shall be instructed and trained in the proper use of respirators and their limitations. Where practicable, the respirators should be assigned to individual workers for their exclusive use. Respirators shall be regularly cleaned and disinfected. Those issued for the exclusive use of one worker shall be cleaned after each day's use, or more often if necessary. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use. Respirators shall be stored in a convenient, clean, and sanitary location. Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained devices shall be thoroughly inspected at least once a month, and after each use. Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained. Persons should not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment.

General Environmental Controls

Toilet Facilities

Toilet Facilities, separate for each sex, shall be provided within 200 feet of all locations at which workers are regularly employed. Toilet facilities so located that employees must use more than one floor-to-floor flight of stairs (or elevator, etc.) are not considered as meeting this requirement. Water closets shall be provided for each sex according to the following table. In every case, the number to be provided for each sex shall be based on the maximum number of persons of that sex employed at any one time at work on the premises.

Number of Persons of Each Sex Minimum Number of Facilities

1 to 9	1
10 to 24	2
25 to 49	3
50 to 74	4
75 to 100	5

Over 100 1 for each additional 30 persons

When toilet facilities will not be used by women, urinals may be provided instead of water closets. One water closet less the number specified in the foregoing may be provided for each urinal, except that the number of water closets in such cases may not be reduced to less than two-thirds of the number specified. An adequate supply of toilet paper with holder shall be provided for every water closet. Covered receptacles shall be kept in all toilet rooms used by women. Washing facilities shall be provided in every toilet room or be adjacent thereto.

Construction of Toilet Rooms

Each toilet facility (closet) shall occupy a separate compartment equipped with a self-closing door, latch and clothes-hanger (hook). The walls of compartments may be less than the height of room walls, but the top shall be not less than six feet from the floor. The minimum floor space allotted for water closets, lavatories, and urinals should be as follows:

Width Depth Floor Space Per Unit

Water Closets 32 in. 42 in. 12 sq. ft.

Lavatories 24 in. 42 in. 12 sq. ft.

Urinals 24 in. 42 in. 12 sq. ft.

Toilet rooms shall be provided with a minimum ventilation rate of 35 cubic feet of air (per minute) per water closet or urinal installed therein.

Change Rooms

Separate change or dressing rooms equipped with individual clothes facilities shall be provided for each sex wherever it is the practice to change from street clothes or wherever it is necessary to change because the work performed involved exposure to excessive dirt, heat, fume, vapor moisture, etc. Where employees work clothes are exposed to contamination, facilities should be provided in change rooms so that street and work clothes will not be stored in contact with each other.

Washing Facilities

Washing facilities for maintaining personal cleanliness shall be provided in every place of employment. They shall be located as provided in the above Section pertaining to toilet facilities. At least one lavatory with adequate hot and cold water, preferably from a combination supply fixture, shall be provided for every 10 employees or portion thereof, up to 100 persons; and over 100 persons - one lavatory for each additional 15 persons or portion thereof. Individual hand towels of cloth or paper shall be provided together with a sanitary means for disposal. Other approved drying apparatus may be substituted for towels. The use of a common towel is prohibited.

Water Supply

Potable water shall conform to the latest revision of the Public Health Service Drinking Water Standards. An adequate supply of potable water shall be provided for drinking, sanitary and cooking purposes. Drinking water should be located as provided for in Section above pertaining to toilet facilities. Under certain conditions (recreational gathering out doors) where the work area is large and the number of employees relatively small, this requirement may be met by the use of approved portable containers. The containers shall be kept sanitary and in good repair. Where ice is used, it shall be clean and sanitary. Open containers such as barrels, pails, or tanks for drinking water from which the water must be dipped or poured, whether or not they are fitted with a cover, shall not be allowed. The common drinking cup is prohibited. Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

Housekeeping

All places of employment, passageways, storerooms, and service rooms shall be kept clean and orderly and in a sanitary condition. Cleaning and sweeping shall be done in such a manner as to minimize the contamination of the air with dust and, so far as is practicable, shall be done outside working hours.

Receptacles used for putrescence solid or liquid waste or refuse shall be so constructed that it does not leak and it shall be maintained in a sanitary condition. All seepings, solid or liquid wastes, refuse and garbage shall be removed on a regular and periodic basis so as to avoid creating a nuisance or menace.

Rodent, Insect, and Vermin Control

Every enclosed workplace and personal service room shall be constructed, equipped, and maintained in such a manner as to prevent the entrance or harborage of rodents, insects, and vermin of any kind.

Lunch Rooms and Facilities

In all places of employment where employees are permitted to lunch on the premises, a suitable space conforming to the following requirements shall be provided for the maximum number of employees who may use such space at one time. The following number of square feet per person shall be required:

Number of Persons Square Feet

25 or less	14
26 to 74	12
75 to 149	11
150 and over	10

Such space shall be physically separated from any location where there is exposure to toxic materials or hazardous operations. No food shall be stored or eaten in any toilet room or any area where there is an exposure to injurious dusts or other toxic materials.

Food Handling

Source of Food

All food shall be from sources approved or considered satisfactory by the health authority, and shall be clean, wholesome, and free from spoilage.

Food Protection

All food while being stored, prepared displayed, served, or sold, or during transportation, shall be protected from contamination. All perishable food shall be stored at such temperatures as will protect against spoilage. All food shall be maintained at safe temperatures (45 F. or below, or 140 F. or above) except during necessary periods or preparation and service.

Food Equipment

All eating and drinking utensils shall be thoroughly cleaned and sanitized after each usage. Establishments which do not have adequate and effective facilities for cleaning and sanitizing utensils shall use only single service articles.

Vending Machines

All food shall be stored or packaged in clean, protective containers and shall be handled, transported and vended in a sanitary manner. The machine location shall be such as to minimize the potential for contamination of the food, shall be well lighted, easily cleanable, and shall be kept clean.

Medical and First Aid

First Aid facilities

In the absence of an infirmary, clinic or hospital in close proximity to the work place, which is used for the treatment of injured employees, a person or persons shall be adequately trained (current American National Red Cross Certificate or its equivalent) to render first aid. First aid supplies shall be readily available.

Emergency Showers and Flushing Equipment

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area (within 25 feet) for immediate emergency use. Where such emergency drenching or flushing equipment is subject to cold or freezing temperatures, provisions should be made to protect against freezing.

Emergency Medical Service

Emergency medical service may be obtained at the nearest emergency room hospital if the injury or illness is serious and immediate attention is required. Where minor injuries occur and students or employees are in close proximity to one of the campus first aid stations, minor injury emergency care may be obtained at the first aid station.

Minor injury first aid medical services are not intended to provide or be used as a substitute for professional medical care. Employees and students should seek proper medical attention from qualified medical sources as required for proper treatment of specific medical conditions.

Fire Protection

General

All fire-fighting appliances shall be of the type required by the National Fire Protection Association, BOCA, and the Virginia Fire Protection Code (VFPC), whichever is most stringent. Where local requirements are equal or superior to National Fire Protection Association requirements, they may be applied.

Portable Fire Extinguishers

Portable fire extinguishers are designed to cope with fires of limited size and are necessary even though the property is equipped with automatic sprinklers, standpipes and hose, or other fixed protection equipment.

Maintenance

Portable extinguishers shall be maintained in a fully charged and operable condition, and kept in their designated places at all times when they are not being used.

Location

Extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire. They should be located along normal paths of travel, where practical extinguishers should be located near exits from an area. Extinguishers shall not be obstructed from view. In large rooms and in certain locations where visual obstructions cannot be completely avoided, means shall be provided to indicate the location and intended use of extinguishers.

Installation

Extinguishers shall be installed on the hangers or in the brackets supplied, mounted in cabinets, or set on shelves unless the extinguishers are of the wheeled type. Extinguishers having a gross weight greater than 40 pounds (except wheeled type) shall be so installed so that the top of the extinguisher is not more than 3-1/2 feet above the floor. Extinguishers mounted in cabinets or wall recesses, or set on shelves shall be placed in a manner such that the extinguishers operating instructions face outward. The location of such extinguishers shall be marked conspicuously. Extinguishers installed under conditions where they are subject to severe vibration shall be installed in brackets specifically designed to cope with the vibration.

Protection from Temperature Extremes

Extinguishers shall be suitable for use within a temperature range of at least plus 40 to plus 120 degrees Fahrenheit.

When extinguishers are installed in locations subjected to temperatures outside this range, they shall be a type approved or listed for the temperatures to which they will be exposed, or placed in an enclosure capable of maintaining the temperatures to which they will be exposed.

Selection and Distribution

Fire extinguishers shall be provided for the protection of both the building structure, combustible, and the contents. Required building protection shall be provided by fire extinguishers suitable for Class A fires. Occupancy hazard protection shall be provided by fire extinguishers, suitable for Such Class A, B, C, D, fire potentials as may be present. Extinguishers provided for building protection may be considered also for the protection of occupancies having a Class A fire potential. Combustible buildings having an occupancy hazard subject to Class B and/or Class C Fires, shall have a standard complement of Class A fire extinguishers for building protection, plus additional Class B and/or Class C extinguishers. Where fire extinguishers have more than one letter classification (such as 2-A;20-BC), they may be considered to satisfy the requirements of each letter class. Rooms or areas shall be graded generally as light hazard, ordinary hazard, or extra hazard. Limited areas of greater or lesser hazard shall be protected as required.

Light Hazard

This exists where the amount of combustibles or flammable liquids is such that small fires may be expected. These may include offices, classrooms, assembly halls, etc.

Ordinary Hazard

This exists where the amount of combustible or flammable liquids is such that fires of moderate size may be expected. These may include parking garages, warehouses not classified as extra hazard, school shop area, etc.

Extra Hazard

This exists where the amount of combustible or flammable liquids present is such that fires of severe magnitude may be expected. These may include woodworking, auto repair, aircraft servicing, warehouses with high-piled (14 feet or higher) combustibles, and processes such as flammable liquids handling, painting, dipping, etc.

Ordinary Combustible (Class A)

Minimal sized of fire extinguishers for the listed grades of hazard shall be provided on the basis of the table shown below. Extinguishers shall be so located that the maximum travel distance shall not exceed those specified in below table.

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distances to Extinguishers	Area to be Protected Per Extinguisher		
		Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hard Occupancy
1A	75 Ft.	3,000 Sq. Ft.	Not permitted except as specified in Par. 4120	Not permitted except as specified in Par. 4120
2A	75 Ft.	6,000 Sq. Ft.	3,000 Sq. Ft.	Not permitted except at specified in Par. 4120
3A	75 Ft.	9,000 Sq. Ft.	4,500 Sq. Ft.	3,000 Sq. Ft.
4A	75 Ft.	1,250 Sq. Ft.	6,000 Sq. Ft.	4,000 Sq. Ft.
6A	75 Ft.	1,250 Sq. Ft.	9,000 Sq. Ft.	6,000 Sq. Ft.

The protection requirement specified in the above table may be fulfilled by several extinguishers of lower rating for ordinary or extra-hazard occupancies. Where the floor area of a building is less than that specified in the table, at least one extinguisher of the minimum size recommended shall be located so that the travel distance thereto shall not exceed 75 feet.

Flammable Liquids (Class B)

Minimum sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of table shown below. Extinguishers shall be located so that maximum travel distances shall not exceed those specified in the table below.

Minimal Size of Fire Extinguishers (Class B)

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher
Light	5B	50 Ft.
Ordinary	10B	50 Ft.
Extra	20B	50 Ft.

Two or more extinguishers of lower rating, except for foam extinguishers shall not be used to fulfill the protection requirements of the above table. Up to three foam extinguishers may be used to fulfill these requirements. The protection requirements may be fulfilled with extinguishers of higher ratings provided the travel distance to such larger extinguishers shall not exceed 50 feet. For flammable liquid hazards of appreciable depth (Class B), such as in dip of quench tanks, Class B fire extinguishers shall be provided on the basis of one numerical unit of Class B extinguishing potential per square foot of flammable liquid surface of the largest tank hazard within the area. Two or more extinguishers of lower rating, except for foam extinguishers, shall not be used in lieu of the extinguisher required for the largest tank. Up to three foam extinguishers may be used to fulfill these requirements. When protection is sought for flammable liquid in appreciable depth and when the liquid surface area is in excess of 20 square feet, the protection requirements should be based on an evaluation of the extent of the hazard and engineering judgment applied.

Energized Electrical Equipment (Class C)

Extinguishers with Class C rating shall be required where energized electrical equipment may be encountered which would require a non conducting extinguishing media. This will include fire either directly involving or surrounding electrical equipment. Since the fire itself is a Class A or Class B hazard, the extinguishers are sized and located on the basis of the anticipated Class A or B hazards.

Inspection

Extinguishers shall be inspected monthly, or at more frequent intervals when circumstances require to ensure that are in their designated places, to ensure they have not been actuated or tampered with, and to detect any obvious physical damage, corrosion, or other impairments.

Any extinguisher showing defects shall be given a complete maintenance check.

At regular intervals, not more than one year apart or when specifically indicated by an inspection, extinguishers shall be thoroughly examined and/or recharged or repaired to insure operability and safety or replace as needed.

Extinguishers removed from the premises to be recharged shall be replaced by spare extinguishers during the period they are gone.

Each extinguisher shall have a durable tag securely attached to show maintenance or recharge date and the initials or signature of the person who performs this service.

Hydrostatic Testing

If at any time, an extinguisher shows evidence of corrosion or mechanical injury, it shall be subjected to a hydrostatic pressure test, or replaced.

Hydrostatic testing shall be conducted at intervals not exceeding those specified in National Fire Protection Association No. 10.

Extinguisher shells, cartridges, or cylinders, which show leakage or permanent distortion in excess of specified limits, or which rupture, shall be removed from service.

Automatic Sprinkler System

General

Every high hazard occupancy shall have automatic sprinkler protection or such other protection as may be appropriate to the particular hazard, including explosion venting for any area subject to a dust explosion hazard, designated to minimize danger to occupants in case of fire or other emergency before they have time to utilize exist of escape.

Impairment of Sprinkler Protection

Before shutting off a section of the fire service system to make sprinkler system connections, notify the authority having jurisdiction. Plan the work carefully, and assemble all materials to enable completion in shortest possible time. Work started on connections should be complete without interruptions, and protection restored as promptly as possible. During the impairment, provide emergency hose lines, additional fire pails and extinguishers, and maintain extra watch service in the areas affected.

When change involves shutting off water from any considerable number of sprinklers for more than a few hours, temporary water supply connections should be made to the sprinkler system so that reasonable protection can be maintained. In adding to old systems or revamping them, protection should be restored each night so far as possible.

Water Supply Valves

All gate valves in supply pipes to automatic sprinklers should be sealed open in a satisfactory manner.

All control, drain, test and alarm valves shall be provided with identification signs of the standard design adopted by the automatic sprinkler industry, or their equivalent.

Where corrosive conditions exist, types of pipe, tube fittings, hangers, and protective coatings that resist corrosion should be used.

Freezing

Where necessary to extend feed mains of wet pipe systems through an open area or through cold rooms, or passageways or the areas exposed to frost, the pipe shall be adequately protected against freezing by insulating coverings, frost proof casings, or other suitable means.

Mechanical Injury

Sprinklers which are so located as to be subject to mechanical injury (in either the upright or the pendent position) shall be protected with approved guards.

Painted Sprinklers

When painting piping or painting in areas near sprinklers, the sprinkler may be protected by covering it with a paper bag which shall be removed immediately after the painting has been finished.

Sprinklers shall not be painted and any sprinklers which have been painted, except for factory applied coatings applied for identification of temperature rating, shall be replaced with new approved sprinklers.

Clearance of sprinklers

Clearance of at least 36 inches shall be maintained between sprinkler deflectors and the top of storage to reduce possibility of obstruction to the distribution of water.

Standpipes and Hoses

Inspections should be made frequently to assure that the hose is in proper position on the racks, and that all of the equipment is in place and in good condition. The hose should be removed and re-racked at intervals at least annually and new gaskets installed in the couplings, both at the hose valves and at the nozzles. Where couplings are polished, care should be taken to see that polish used does not touch fabric of hose.

MANUAL FIRE ALARMS

General

Manual fire alarm boxes shall be approved for the particular application and shall be used only for fire protective signaling purposes. Combined fire alarm and watchman's signaling boxes are acceptable.

Mounting fire alarm boxes shall be approved for the particular application and shall be used only for fire protective signaling purposes.

Manual fire alarm boxes shall be distributed throughout the protected area so that they are unobstructed, readily accessible, and located in the normal path of exit from the area. Additional boxes shall be provided on each floor to obtain a maximum horizontal travel distance of 200 feet to the nearest box.

CARBON DIOXIDE AND DRY CHEMICAL FIRE EXTINGUISHING SYSTEMS

Safety Requirements

In any proposed use of carbon dioxide where there is a possibility that occupants may be trapped in, or enter into atmospheres made hazardous by a carbon dioxide discharge, suitable safeguards shall be provided to ensure prompt evaluation of and to prevent entry into such atmospheres and also to provide means for prompt rescue of any trapped personnel. Such safety items as personnel training, warning signs, discharge alarms, pre-discharge alarms and breathing apparatus shall be considered. Alarms should be provided to give positive warning of a discharge where hazards to personnel may exist. Such alarms should function to warn against personnel entry into hazardous area as long as such hazards exist or until hazards are properly recognized.

Application Systems

Local Application Systems shall be designed, installed, tested and maintained in accordance with the applicable requirements in National Fire Protection Association.

Extent of Hazard

The hazard shall be so isolated from other hazards or combustibles that fire will not spread outside the protected area. The entire hazard shall be protected. The hazards shall include all areas that are or may become coated by combustible liquids or shallow solid coatings such as area subject to spillage, leakage, drippings, splashing, or condensation, and all associated materials or equipment such as freshly coated stock, drain boards, hood ducts, etc., that might extend fire outside of lead fire into the protected area.

Maintenance

These systems shall be maintained in fully operating condition at all times.

Inspection and Tests

At least annually, all carbon dioxide systems shall be thoroughly inspected and tested for proper operation by a competent fire safety engineer or inspector. This requirement is in addition to other inspections required.

Procedure for Reporting a Fire

The Fire Department shall be notified. The Safety Office and President shall be called for all fires regardless of size. Any person discovering a fire, regardless of type and size, will arouse all occupants by using local fire alarms, shouting, or by any other means provided; obtain assistance and, on the campus, immediately notify the Safety Officer or President's Office. There are fire alarms in the Institutes buildings; therefore, all persons using any of these buildings should familiarize themselves with the alarm systems. All fires involving community college property, as well as those buildings involved in fire that create a hazard to property, will be reported to the local Fire Department by telephone or in any other possible and expeditious manner. When reporting a fire or other emergency, give the building name, the caller's name and any other information requested. Remain on the phone until released by the person that you are notifying, unless conditions prevent you from doing so. If you call the Safety Officer prior to the Fire Department, the Safety Office will notify the Fire Department.

Safety Exit Drills

General

All personnel in buildings shall take part in a fire drill and leave the buildings. During the drills, the person responsible for conducting the drill shall observe the action of personnel and check the first aid fire fighting equipment, including fire escapes and fire exits. Variation of drills should be held, such as blocked exits, and night and morning drills shall be used to create a variety of what could be experienced during actual emergency. Coordination shall be effected with the Safety Officer prior to conducting any drills. A minimum of 24 hours notice is required. Upon conclusion of a fire evacuation drill, the Safety Officer shall forward a report to the President. (Refer to Fire safety plan on page 3.)

Before a Fire

- . Know the location of all fire alarm stations in your building and how to activate them.
- . Know the location of the portable fire extinguisher and how to use them.
- . Know the location of alternate means of exits.

On Discovering a Fire

- . Sound the fire alarm immediately to alert occupants.
- . Shut all doors and windows in the immediate vicinity of the fire.

. Vacate the building by the nearest accessible exit.

On Hearing the Fire Alarm Sound

- . Raise window shades or open blinds all the way.
- . Close all windows tightly. Put on shoes and coat. Take a towel along to cover face.
- . Vacate the room, leaving light on and door closed but unlocked.
- . Vacate the building by the nearest exit.

Fire Safety Inspections

Systematic inspections to locate and eliminate fire hazards is an indispensable element of the Fire and Safety Program. The Safety Officer will conduct regular inspections of all facilities on a regularly scheduled basis.

Portable Fire Fighting Equipment

The Safety Officer will ensure that all fire extinguishers and hoses are inspected monthly. Extinguisher must be mounted so that there will be no accidental injury to personnel or interference with supplies or traffic movement. Fire hose cabinets or hangers shall be kept clear at all times. Hand type extinguishers will be suspended on hangers so that the tops of the extinguishers are not more than five (5) feet above the floor. Under no circumstances shall fire extinguishers be removed or relocated by anyone other than the Safety Officer except for use in fire fighting. If any fire extinguishers are considered to be deficient or damaged, the Safety Officer shall be notified in order that the necessary corrective measures may be taken. Tags on fire extinguishers will not be removed or altered. The Safety Officer is responsible for determining number and type of fire extinguishers required in campus buildings. Correct information with respect to type, number, location, and refilling of these extinguishers may be obtained by calling the Safety Officer. Responsibility for recharging this equipment is assigned to the Safety Officer. Individuals who maliciously discharge extinguishers are not only endangering their own life safety but are endangering the lives and property of others, and subject themselves to judicial punishment, in case of students, and to dismissal in case of employees.

Inspecting and Testing Fire Alarm and Sprinkler Systems

In order to ensure proper continuous operation of the fire alarm and automatic sprinkler systems the Safety Officer shall cause each system to be tested on a periodic basis. The testing will be performed during the hours that will cause the least disruption to normal activity. Upon completing of each test a Fire Alarm Test Report or Sprinkler System Test Report will be filed with the Safety Officer.

Inspecting and Testing Fire Hydrants and Standpipe Systems

The Safety Officer shall cause each fire hydrant and standpipe system to be checked and tested at least once annually. The inspections, checking and testing, shall include winterizing those hydrants subject to freezing.

Fire Reports

All fire, regardless of how minor or if burned out prior to discovery, shall be reported to the Safety Officer. As in the case of accident and injury reports, the information derived from these reports will materially assist the Safety Officer in identifying those areas and conditions which are particularly hazardous. The report will be analyzed and; if possible, corrective action to eliminate the hazard will be taken immediately. The Safety Officer will be notified immediately upon discovery of the fire. A report of all fires shall be kept on file with the Safety Officer.

Alterations and Renovations (Fire Protection)

In those structures altered or renovated by the Maintenance Department, Supervisor of Buildings and Grounds will ensure that unsafe conditions are not added but are eliminated in such structures. Prior to commencement of any alterations or renovations, the following procedures shall be followed:

- a. Any alterations or renovations shall comply with all applicable fire codes and safety and health regulations.
- b. Any plans and specifications related to such alterations or renovations shall be coordinated with the Safety Officer to assure compliance with all applicable safety and health codes.
- c. The Safety officer shall be notified periodically during renovation for the purpose of inspecting to ensure that applicable safety and health codes are being complied with and that all possible safety precautions are being taken.
- d. Any alterations or renovations performed by private construction companies or personnel other than Maintenance employees, shall conform to all regulations applicable to the work being done as adopted by the community college and all State and Federal laws.
- e. All plans and specifications, including preliminary and final shall be submitted to the Safety Officer for review.
- f. All plans and specifications will comply with the requirements of the State Fire Marshal and the Occupational Safety and Health Act.

Material Handling and Storage

Gear and Equipment, General Requirements

All material handling gear and equipment provided by the employer shall be inspected by the employer or his authorized representative before each use and, when necessary, at intervals during its use, to ensure that it is safe. Any gear which is found upon such inspection, to be visibly unsafe, shall not be used until it is made safe.

Overhead Guards

Whenever an industrial truck operation exposes the driver, it shall be equipped with overhead guards. It shall be of sufficient strength to support a uniformly distributed standard static test load based upon a percent of the truck capacity rating.

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Fueling (Flammable Liquids)

Flammable Liquids except for L-P gas powered trucks with removable Interstate Commerce Commission type cylinders and diesel powered units, industrial trucks shall be refueled only at locations specifically designated for that purpose. Locations outside main buildings should be selected to minimize the chances of involving combustible material beyond the equipment being refueled, in the event of a fire. Contact shall be maintained between the tank fuel connection on the powered industrial truck and the refueling hose nozzle or safety can spout to prevent the accumulation of dangerous charge of static electricity.

Smoking Prohibition

Smoking shall be prohibited in the refueling area. Engines shall be stopped and operator off the truck during refueling.

Battery Charging

Installations shall be located in areas designated for that purpose. Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting the charging apparatus from damage by trucks and for adequate ventilation for dispersal of fumes from battery vapors. A carboy tilter or siphon shall be provided for handling electrolyte. Smoking shall be prohibited in the charging area. Precautions shall be taken to prevent open flames, sparks, or electric arcs in battery charging areas.

Hazardous Location

Powered industrial trucks shall not be used in hazardous locations as defined by the National Electrical Code Classes I, II, and III, Division 1 or 2 unless approved for such use by a recognized testing Laboratory. Signs shall be posted to designate these hazardous areas.

Portable Fire Extinguisher

At least one portable fire extinguisher approved for use on Class B and C fires shall be kept in close proximity available for immediate use or shall be fixed to each unit in a readily accessible position.

Load Capacity

The designated load capacity of each industrial truck shall be strictly observed. No counter weighing shall be added to fork trucks to increase lifting capacity unless approved by the truck manufacturer.

Hand Trucks

Traffic Surfaces in Work Areas

Aisles, passageways, floor, and ramps used for vehicular traffic shall be in first class condition and free of obstructions (i.e., free of depression, potholes, and other defects).

Aisles and passageways for one-way traffic shall be not more than the width of the widest vehicles or load plus 3 feet. For two-way traffic the minimum width of aisles shall not be less than twice the width of the widest vehicles or loads plus 3 feet.

Lanes for aisles and passageways shall be painted on the floor, or similar method employed to mark such areas.

Black, white or combination of these two shall be the basic colors for the designation of traffic and house-keeping markings.

Bagged Materials

Bags shall not be piled more than ten (10) bags high except when stored in bins or enclosures built for such purposes.

The bags around the outside of the piles shall be placed with the mouths of the bags facing the center of the pile.

The first five (5) tiers of bags each way from any corner shall be necessary to pile above the tenth tier, another set-back shall be made, starting with the eleventh tier.

The back tier, when not resting against a wall of sufficient strength to withstand the pressure, should be stepped back one bag in every five (5) tiers, the same as the end tiers.

During un-piling, the entire top of the pile shall be kept level and the necessary step-backs every five (5) bags maintained.

Bulk (loose) Materials

Materials dumped against walls or partitions shall not be stored to a height that will endanger the stability of such walls and partitions.

In withdrawing materials, no overhanging shall be permitted to exist at any time.

Fire Protection

All commodities shall be stored, handled and piled with due regard to their fire characteristics. Any commodities which may be hazardous in combination with each other shall be stored so they cannot come in contact with each other. Significant quantities of commodities with fire hazards greater than ordinary combustibles shall be separated from the main bulk of storage by fire walls having a fire resistance of at least one hour. Adequate clearance shall be maintained around lights and heating units to prevent ignition of combustible commodities. Clearance of at least 36 inches shall be maintained between sprinkler deflectors and top of storage to deduce possibility of obstruction to the distribution of water. Commodities shall not be stored within 36 inches of a fire door opening.

Outdoor Storage

Buildings shall not be less than 15 feet from open yard piling unless the buildings have blank exterior masonry walls. Buildings of wood frame construction or containing hazardous operations should be at least 50 feet from the nearest storage pile. The entire storage site shall be kept free from accumulations of unnecessary combustible materials. Weeds and grass shall be kept down and a regular procedure provided for the periodic cleanup of the entire area. Storage area will be kept free from accumulations of materials that constitute hazards from tripping or pest harborage. Proper drainage shall be provided and clearance signs to warn of clearance limits shall be posted.

Vaults

The door locking mechanisms on vaults and file rooms shall be of type enabling a person locked inside to open the door from the inside.

Machine Guarding and Mechanical Safety

General Requirements - Machine Guarding

Machine guarding shall be provided to protect the operator and other employees in the machining area from injury as a result of coming in contact with the work in progress, moving parts or the mechanical motions of the machines.

Application of Guarding Techniques

Multiple Guarding

One or more techniques of machine guarding may be required to effectively meet the requirements of the regulations. A piece of equipment may require more than one basic guarding devices since the machine may present more than one type of exposure. For example, power transmission guarding may be required for the belt and pulley and a barrier guard may be required for the in-running nip points of the same machine.

Machine Guarding Defined

Machine guarding for the purpose of this handbook may be defined as a system that may employ a simple fixed position barrier, two-hand tripping devices, interlocks, electronic or pneumatic systems, sweep guards or any combination thereof which will effectively protect the operator and others nearby from coming in contact with mechanical motions or mechanisms of the machines.

Mechanical Motions Defined

To effectively identify all danger points of a machine that required guarding, a basic knowledge of the resulting actions of certain mechanical motions must be understood. There is a wide variety of machinery employed in a multiplicity of uses, but there are only a few rather simple mechanical motions involved. The mechanical motions coupled with one or more mechanisms create the hazards and conditions to be guarded. Mechanisms employ rotary motions, reciprocating motions or a combination of both. Each of these motions can produce a crushing or shearing action:

Rotary motion is found in simple rotating mechanisms which includes drums, extractors, circular saws, slicing machines, cloth cutters, band saws, milling machines, grinding machines, drilling and boring machines, screw and worm, mechanisms, extruding machines, screw conveyors, food choppers, etc., mechanical power transmission apparatus - shafting, flywheels, pulleys, belts, etc. fall under the rotating mechanism category.

Reciprocating motion is found where sliding (reciprocating) parts usually supported in guides, approach or cross a fixed part of a machine or stock. Reciprocating motions and mechanisms are usually found in slide (rams) on power presses and forging hammers, planning mill tables, rams of shapers, and as clamping or hold down fixtures, guillotine and squaring shears, etc.

HAZARDOUS MECHANISM TO BE GUARDED

Rotating Mechanisms

Rotating mechanisms present a variety of hazards that require guarding. Among the many, but not limited to are: mechanical power transmission apparatus which involved the guarding of gears, shafting, flywheels, pulleys, belts, clutches, etc.

Special Hazards are created by mechanisms having one or more rotating parts. In some situations, in-running nip points require only simple fixed barrier guards, (fly-wheels, belts, and pulleys). In other instances a complex series of barrier and interlocking systems may be needed to effectively protect the operator or those nearby. The hazard on in-running nip points is that it draws objects in, crushes or flattens them.

Cutting and Shearing Mechanisms

The hazards relating to these mechanisms lie at the point where the rotary cutting action is applied or where the reciprocating mechanism crosses a fixed object. Some examples of machines using cutting and shearing mechanisms are grinding machines, drilling and boring machines, circular saws, band saws, lathes, etc.

Screw and Worm Mechanisms

Machines employing worm or screw mechanisms are meat grinders, food mixers, crew conveyors and materials mixer of various types. These mechanisms set up shearing actions between the moving screw and the fixed part creating a battering or mangling action. Guarding must be provided where an exposure of an operator being caught between the action of the worm mechanism and the fixed part of the equipment exists.

Bending and Forming Mechanisms

Typical examples of bending and forming mechanisms are found in power presses, foot presses, hand presses, press brakes, metal shears, forging machines and bending presses for forming and stamping pieces of metals and other materials. The principal hazards lie at the point of operation where the punch or upper die approaches, crosses or comes in contact with the lower die.

Description and Types of Guards

General

The hazards involved in machinery operations can be eliminated by application of effective guarding techniques.

Effective protection may require the use of a single simple fixed guard or a system of the several guards described below in some combination. Except for the treatment of guarding power transmission apparatus, the main effort is directed to machine and point of operation guarding. The three types of guards most frequently used are described in the following sections.

Fixed (Enclosure) Guards

The fixed guard is considered preferable to all types of guards and should be used unless it has been determined to be impractical. As a general rule, fixed guards usually satisfy the requirements for guarding power transmission mechanisms and for confining flying particles. The fixed guard, when properly adjusted, will accommodate feeding, but shall not at all times prevent the operator's hands from reaching the danger zone.

Interlocking Guards and Devices

Where fixed guards cannot be used, an interlocking guard should be used. Interlocking guards may be enclosure, barrier or gate type guards operated mechanically, electrically, pneumatically, electronically, or a combination thereof. An interlocking device should be of a design that prevents machine motion until the guard is moved into place or otherwise acting so that the operator cannot reach the danger zone.

To be effective, an interlocking device must satisfy three requirements.

- a. It must act to guard the dangerous part before the machine can be operated.
- b. It must keep the guard closed until the dangerous part is at rest.
- c. It must always prevent operation of the machine if the interlocking device fails.

Automatic Guards

Automatic guards may be used when neither a fixed nor interlocking guard is practicable. Automatic guards function independently of the operator, and its action is usually repeated as long as the machine is in motion. Such guards are usually operated by the machine itself through a system of linkage or levers. There are many variations of this type guard: e.g., sweep guards, swing guards, pullback guards, etc.

Whenever automatic guards are used on machines loaded or unloaded by hand, the operator should be provided with and required to use hand tools.

Other Guarding Devices and Techniques

There are guarding devices and techniques other than those described above, which can be effectively used to complement other type guarding or, if circumstances and safety permit, used in lieu of them.

Guard Design and Construction

General

Every guard shall be reliable in construction, application and adjustment. It shall be so designed and substantially constructed as to:

- a. Prevent the operator or other personnel from having any part of their body in the danger zone during the operation.
- b. Facilitate inspection and lubrication and so design to minimize the possibility of its being removed or misused.
- c. Present no hazards itself, such as splinters, pinch points, shear points, sharp corners, rough edges, or other sources of injury.
- d. Contain flying fragments, missiles, or particles that may be thrown during the operation.

Guard Openings

Openings in guards, barriers or screens at the point of operation shall be small enough to prevent the operator or others from placing parts of their body into the danger zone. Open work guards can be of woven wire expanded metal, perforated metal or wood strips.

Guarding at the Source of Power

Distinct from guarding at the point of operation but complementary to it is the matter of guarding at the point where power is delivered to machinery. Devices to control delivery of the power at the source include electrical switches of many kinds and numerous varieties of valves, regulators, and metering devices. The latter are used to open, shut, or otherwise control the flow and pressure of steam, pneumatic, and hydraulic media that energize machinery. These devices must be of a design that will bleed-off or relieve residual pressures in the lines, after the power has been shut off, beyond the control point so as to prevent an accidental cycle or stroke of the machine.

Guarding of Specific Machines and Mechanisms

Power Transmission and Related Rotating Mechanisms

All moving parts of equipment used in the mechanical transmission of power, located so that any part is 7 feet or less above floors and platforms, shall be guarded to prevent persons from coming in contact with rotating mechanisms. The mechanisms include but are not limited to flywheels, shafting spindles, belts, pulley, gears, sprockets, cams, couplings, keys and set screws.

Construction of Guards

Construction of guards and filler materials vary and shall meet the requirements set forth in the OSHA standard. Belts, pulleys, shafting, etc. have a basic 7 foot clearance requirement, below which guarding is required and is listed for general reference. Those items having additional guarding requirements will be treated in more detail.

Collars

All revolving collars shall be cylindrical, and screws or bolts used in collars shall not project beyond the largest periphery of the collar.

Couplings

Shaft couplings shall be so constructed as to prevent no hazards from bolts, nuts, set screws, or revolving surfaces. Bolts, nuts, and set screws will however, be permitted where they are covered with safety sleeves or where they are used parallel with the shafting and are countersunk or else do not extend beyond the flange of the coupling.

Cranks and Connecting Rods

Cranks and connecting rods when exposed to contract shall be guarded.

Gears

All gears shall be guarded except hand-operated gears used only to adjust machine parts and which do not continue to move after hand power is removed.

Oiling Openings

When frequent oiling must be done, openings with hinged or sliding self-closing doors shall be provided. All openings not readily accessible shall have oil feed tubes if lubricant is to be added while machinery is in motion.

Projections

All projecting keys, set screws and other projections in revolving parts shall be removed or covered. This does not apply to sprocket casings or to the enclosures, not to keys, set screws or oil cups in hubs of pulleys less than 20 inches in diameter where they are within the plane of the rim of the pulley.

Rotating Mechanisms (Shop Equipment and Tools)

The following sections do not cover power transmissions guarding previously covered. Certain cutting processes generate chips, flying particles, etc. The guarding system should therefore include protection against such missiles by applicable guards or exhaust systems.

Portable Powered Hand Tools

General Requirements

All hand and portable powered tools and equipment whether furnished by the employee or the employer shall be maintained in a safe condition free of worn or defective parts.

Point of Operation Guards

All portable powered tools capable of receiving guards an/or designed to accommodate guards shall be equipped with such guards so as to prevent the operator form having any part of his body in the danger zone when the tool is operating.

Power Saws

All portable and/ or table power-driven saws shall be equipped with guards above and below the base plate shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guards shall automatically and instantly return to the covering position.

Power Grinders

Safety guards used on right angle or vertical portable grinders shall have a minimum exposure angle of 180 degrees, and be located so as to be between the operator and wheel during the use. The top half of the wheel shall be enclosed at all times.

Pneumatic Powered Tools

All pneumatic powered portable tools shall be equipped with an automatic shut-off valve so arranged as to close the air inlet valve when the pressure of the operator's hand is removed. Each tool shall be equipped with a tool retainer which will prevent accidental ejection of the tool.

Grounding

All electric powered portable tools with exposed non current carrying metal parts of cord and plug connected equipment which are liable to become energized shall be grounded. Portable tools protected by an approved system of double insulation, or its equivalent, need not be grounded. Where such an approved system is employed the equipment shall be distinctively marked.

Power Cut-Off and Pressure Control Devices

Electric Tools - General

Portable electric tools which are held in the hand shall be equipped with switches of a type which must be manually held in position.

Woodworking Tools

Hand held power driven woodworking tools shall be provided with "deadman" control, such as spring actuated switch, valve, or equivalent device, so that the power will be automatically shut off whenever the operator releases the control.

Sandblasting Nozzles

A deadman control or an effective signal device shall be provided at the nozzle end of the blasting hose. A deadman control shall provide direct cutoff at the nozzle. The signal device shall be such that it will immediately signal the pot tender by means of visual and audible signals to cut off the flow in the event the blaster loses control of the hose. The pot tender shall be available at all times to respond immediately to the signal.

Use of Compressed Air

Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment.

Explosive-Actuated Fastening Tools

Muzzle Shields

All explosive-actuated fastening tools muzzle ends shall have a protective shield or guard at least 3-1/2 inches in diameter, mounted perpendicular to and concentric with the barrel, and designed to confine any flying fragments or particles that might otherwise create a hazard at the time of firing. Where a standard shield or guard cannot be used or where it does not cover all apparent avenues through which flying particles might escape, a special shield

or guard, fixture or jig shall be used as a substitute. The tool shall be so designed that it cannot be fired unless it is equipped with a standard protective shield or guard, fixture, or jig.

Firing Mechanism

The explosive-actuated fastening tool's firing mechanism shall be so designed that the tool cannot fire during loading or preparation to fire, or if the tool should be dropped while loaded. Firing of the tool shall be dependent upon at least two separate and distinct operations of the operator, with the final firing movement being separate from the operation of bringing the tool in to the firing position.

Jacks

The operator shall make sure the jack used has a rating sufficient to lift and sustain the load. The rated load shall be legible and permanently marked in a prominent location on the jack by casting, stamping, or other suitable means.

Hand Tools, Miscellaneous

Employers shall not issue or permit the use of unsafe hand tools.

Wrenches, including crescent, pipe, end and socket wrenches, shall not be used when jaws are sprung to the point that slippage occurs.

Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.

The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool. Each supervisor shall be responsible for the safe condition of tools and equipment used by employees, including tools and equipment which may be furnished by employees.

Welding, Cutting, and Brazing

Arc Welding and Cutting

Grounding

The frame or case of the welding machine (except engine driven machines) shall be grounded under conditions and according to the methods prescribed in Article 630 of the National Electrical Code.

Maintenance

All arc welding equipment should be maintained in safe working order at all times.

Resistance Welding Equipment

Press Welding Machine

All press welding machine operations shall be effectively guarded by protection similar to that prescribed for power press operations.

Shielding of Welding Machines

Shield guards of safety glass or fire resistant plastic shall be installed at the point of operation to protect the welder and other employees from flying sparks.

Fire Protection

Prohibited Welding Situations

- o Cutting or welding shall not be permitted in the following situations.
- o In sprinkled buildings while such protection is impaired.
- o In the presence of explosive atmospheres.
- o In areas near the storage of quantities or readily ignitable materials

Fire Watchers

Fire watchers shall be required by the individual responsible for authorizing cutting and welding whenever cutting or welding is performed in locations where other than a minor fire might develop, or where any of the following conditions exist:

- a. Where appreciable combustible material in building construction or contents is closer than 35 feet to the point of operation.
- b. Where appreciable combustibles are more than 35 feet away but are easily ignited by sparks.
- c. Where wall or floor opening with 35-foot radius expose combustible materials in adjacent areas including concealed spaces in walls or floors.
- d. Where combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs, and are likely to be ignited by conduction or radiation. Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire, and shall watch for fire in all exposed areas. They shall try to extinguish the fire first only when obviously within the capacity of the equipment available, otherwise they shall sound the alarm. A fire watch shall be maintained for at least a half hour after completion of cutting or welding operations to detect and extinguish possible smoldering fires.

Containers That Have Held Combustibles

No welding, cutting or other hot work shall be performed on used drums, barrels, tanks or other containers until they have been cleaned so thoroughly as to make absolutely certain that there are no flammable materials present or any substances such as greases, tars, acids, or other materials present which when subjected to heat, might produce flammable or toxic vapors. Any pipelines or connection to the drum or vessel must be is connected or blanked.

Personal Protection

Eye Protection

Helmets or head shields shall be used during all arc welding or cutting operations. Goggles or other suitable eye protection shall be used during all gas welding or cutting operations. Eye protection shall be provided where needed for brazing operations.

Welding Booths and Welding Bays

Welding Bays

Where arc welding is regularly carried on in a building, the walls or the welding bay should be painted with a finish of low reflectivity.

Welding-Booths-Arc Welding

The worker should be enclosed in an individual booth painted with a finish of low reflectivity or shall be enclosed with noncombustible screens similarly painted. Booths and screens shall permit circulation of air at floor level.

Adjacent Work Space-Arc Welding

Workers or others adjacent to the welding areas shall be protected from the rays by noncombustible screens or shields or shall be required to wear appropriate goggles.

Protective Clothing

All welders should wear flameproof gauntlet gloves. Flameproof aprons may be desirable as protection against radiant heat and sparks. Cotton clothing, if used, should be chemically treated to reduce its combustibility. All clothing should be reasonably free from oil or grease. For heavy work, fire-resistant leggings, high boots, or other equivalent protection should be used.

Ventilation

Mechanical ventilation shall be provided when welding or cutting is done:

- a. In a space of less than 10,000 cubic feet per welder.
- b. In a room having a ceiling height of less than 16 feet.
- c. In confined spaces or where the welding space contains partitions, balconies, or other structural barriers to the extent that they significantly obstruct ventilation.
- d. On materials or under conditions likely to cause the release of harmful quantities of toxic airborne contaminants. Such ventilation shall be at the minimum rate of 2000 cubic feet per welder, except when local exhaust ventilation or supplied air respirators are provided.

Local Exhaust Ventilation

Mechanical local exhaust ventilation may be by means of either:

- a. Freely movable hoods intended to be placed by the welder as near as practicable to the work being welded and provided with a rate of air flow sufficient to maintain a velocity in the direction of the hood of 100 linear feet per minute in the zone of welding when the hood is at its most remote distance from the point of welding.
- b. A fixed enclosure with a top and not less than two sides which surround the welding or cutting operations and with a rate of airflow sufficient to maintain a velocity away from the welder of not less than 100 linear feet per minute.

Electrical

Approval

All electrical conductors and equipment shall be approved.

Examination, Installation, and Use of Equipment

Examination

The college shall ensure that electrical equipment is free from recognizable hazards that are likely to cause death or serious physical harm to employees or students.

Installation and Use

Only listed, labeled, or certified equipment shall be installed and used in accordance with instructions included in the listing, labeling, or certification.

Interrupting Rating

Equipment intended to break current shall have an interrupting rating at system voltage sufficient for the current that must be interrupted.

Mounting and Cooling of Equipment

Electric equipment shall be firmly secured to the surface on which it is mounted. Wooden plugs driven into masonry, concrete, plaster, or similar materials shall not be used.

Electrical equipment which depends upon the natural circulation of air and connection principles for cooling of exposed surfaces shall be installed so that room air flow over such surfaces is not prevented by walls or by adjacent installed equipment. For equipment designed for floor mounting, clearance between top surfaces and adjacent surfaces shall be provided to dissipate rising warm air. Electrical equipment provided with ventilating openings shall be installed so that walls or other obstructions do not prevent the free circulation of air through the equipment.

Arcing Parts

Parts of electric equipment which in ordinary operation produce arcs, sparks, flames, or molten metal shall be enclosed or separated and isolated from all combustible material.

Marking

Electrical equipment shall not be used unless the manufacturer's name, trademark, or other descriptive marking by which the organization responsible for the produce may be identified is placed on the equipment. Other markings must include voltage, current, wattage, or other ratings as necessary.

Electrical Grounding

The resistance to earth should be maintained as low as can be realized economically. A resistance of 1 ohm or less is desirable. All interior wiring systems shall have grounded conductor which is continuously identified throughout the system.

Portable Appliances

Exposed non-current carrying metal parts of cord and plug connected equipment and appliances shall be grounded.

Fixed Equipment

Exposed non-current carrying metal parts of fixed equipment which are liable to become energized shall be grounded.

Fixed Wiring and Installation: Guarding of Live Parts, Not More Than 600 Volts

Live parts of electrical equipment operating at 50 volts or more shall be guarded against accidental contact by approved cabinets or other forms of approved enclosures, or any of the following means:

- a. By location in a room, vault, or similar enclosure which is accessible only to qualified persons.
- b. By suitable permanent, substantial partitions or screens, so arranged that only qualified persons will have access to the space within reach of the live parts.
- c. By a standard guardrail, provided the location is such as to make contact with live parts unlikely.
- d. By location on a suitable balcony, gallery, or platform so elevated and arranged as to exclude unqualified persons.
- e. By elevation at least 8 feet above the floor or other working surface.
- f. In locations where electrical equipment would be exposed to physical damage, enclosures or guards shall be so arranged and of such strength as to prevent such damage.
- g. Entrances to rooms and other guarded locations containing exposed live parts shall be marked with conspicuous standard warning signs forbidding unqualified persons to enter.
- h. Where current-carrying parts of more than 150 volts to ground must necessarily be exposed (unguarded) within 8 feet from the floor, all surrounding conducting floors and other conducting surfaces within reach shall be covered.

Over current Protection

Equipment and conductors shall be protected against over current as specified in the National Electric Code. Devices intended to break current shall have an interrupting capacity sufficient for the voltage employed and for the current which must be interrupted. Over current devices shall be located at the point where the conductor to be protected receives its supply. Over current devices shall be enclosed in cutout boxes or cabinets, unless a part of a specially approved assembly which affords equivalent protection, or unless mounted on switchboards, panel boards, or controllers located in rooms or enclosures free from easily ignitable material and dampness. Over current devices shall be so located or shielded that persons will not be burned or otherwise injured by their operation.

Maintenance

Over current devices shall be maintained in a fully operational condition, safe for use without insulating protection of any kind.

Working Space

Sufficient access and working space shall be provided and maintained about electrical equipment to permit ready and safe operation and maintenance at all times. Working space shall not be used for storage.

Boxes

In completed installations each outlet box shall be provided with a cover. Openings through which conductors enter shall be adequately closed. Unused openings in boxes and fittings shall be effectively closed to afford protection substantially equivalent to that of the wall of the box or fitting. Boxes shall be securely and rigidly fastened to the surface upon which they are mounted.

Insulation Resistance

All wiring shall be so installed that when completed the system will be free from short-circuits and from grounds other than as provided for in the National Electrical Code.

Identification

Each connecting means required by the National Electrical Code for motors and appliances and each service feeder or branch circuit at the point where it originates, shall be legibly marked to indicate its purpose is evident. Attachment plugs and connectors shall be so designed that they will not fit into receptacles of other than correct ratings.

Ducts and Air Handling Spaces

No wiring systems of any type shall be installed in any duct, or shaft containing only such ducts, used for vapor removal or ventilation of cooking equipment.

Appliances - Portable

Portable appliances and equipment shall be properly grounded. Each appliance shall be provided with a means for disconnection for all grounded conductors. Switches on hand-held tools shall be of a type which must be manually held in the closed position. Flexible cord shall be used only in continuous lengths without splice or tape. Flexible cords and cables and their associated fittings shall be suitable for the conditions of use and locations. Worn or frayed electric cables shall not be used.

Equipment - Fixed

Fixed equipment shall be properly grounded. In locations where dust will collect on or in motors in such quantities as to seriously interfere with the ventilation or cooling of motors, and thereby cause dangerous temperatures, suitable types of enclosed motors which will not overheat under the prevailing conditions shall be used.

Switchboards which have any exposed live parts shall be located in permanently dry locations and then only where under competent supervision and accessible only to qualified persons. Switchboards shall be so placed as to reduce to a minimum the probability of communicating fire to adjacent easily ignitable materials.

Motors - Protection Against Hazards

Suitable guards or enclosures shall be provided to protect exposed current carrying parts of motors unless the motor is designed for the existing condition.

Transformers

Exposed non current carrying metal parts of transformer installations including fences, guards, etc., shall be grounded where required under the conditions and in the manner prescribed for electrical equipment and other exposed metal parts. Oil transformers located indoors shall be installed in a vault of fire resistive construction, ventilated and well lighted. Askarel-insulated and dry type transformers located indoors shall be adequately ventilated. Rooms and spaces shall be so arranged with fences, screens, partitions, or walls as to prevent entrance of unauthorized attendants and entrances shall be kept locked. The operating voltage of the exposed live parts of

transformer installations shall be indicated by signs or visible markings on the equipment or structure. Materials shall not be stored in transformer vaults.

Hazardous Locations

All wiring, components, and utilization equipment shall be approved by Underwriter's Laboratories, Inc. provided such equipment is commercially available. All approved equipment shall be used only within the scope of the approval. Equipment approved for a specific hazardous location shall not be installed or intermixed with equipment approved for another specific hazardous location. Special attention shall be given to workmanship to insure that all wiring components and utilization equipment are maintained as vapor, dust, or fiber tight as contemplated by their approvals. There shall be no loose or missing screws, gaskets, threaded connections, or other impairments to this tight condition.

Definitions of Hazardous Locations

Class I Locations

Class I locations are those in which flammable gases or vapors are or may be present in quantities sufficient to produce explosive or ignitable mixtures.

Class II Locations

Class II locations are those which are hazardous because of the presence of combustible dust.

Class III Locations

Class III locations are those which are hazardous because of the presence of easily ignitable fibers or flyings, but in which such fibers or flyings are not likely to be in suspension in air in quantities sufficient to produce ignitable mixtures.

Battery Rooms and Stationary Battery Areas

Isolation

Storage batteries should be so located as to be not accessible to other than properly qualified persons. Batteries of the non-sealed type shall be located in separate rooms or enclosures so arranged as to prevent the escape into other rooms of objectionable quantities of electrolyte spray.

Ventilation

Provision shall be made for sufficient diffusion of the gases from the battery to prevent the accumulation of an explosive mixture.

Electrical Wiring

Wiring fittings, heating and ventilation appliances shall be in accordance with the requirements of the National Electrical Code which sets forth the specifications for various hazardous installations.

Racks and Trays

Racks and trays shall be substantial and treated to be resistant to the electrolyte.

Floors

Floors shall be of acid resistant construction or be adequately protected from acid accumulations.

Illumination

General

Good illumination shall be provided in all walking, working, and service areas and for all difficult seeing tasks to ensure the safety of the employee in or at the work environment. There shall be good direction and uniform distribution of illumination. Checking for general areas where there is no specific seeing tasks at hand shall be of a type which produces a uniform distribution of illumination throughout the area involved.

Supplementary Lighting

Where the required amount illumination for difficult seeing tasks or quality of lighting cannot be obtained by general lighting methods, supplementary lighting shall be provided. Supplementary luminaries should be permanently mounted in a location to produce the best lighting efforts. The luminaries must be mechanically and electrically rugged to withstand rough handling. Lamps should be guarded and of a type to withstand this service. Guards of other means should protect the user from excessive heat. All possible precautions should be taken to prevent electrical shock to the user.

Illumination Level for Permanent Locations

The illumination levels for permanently established location and areas shall be as follows:

Illumination Levels for Permanent Locations

Service Spaces

Type Space	Foot Candles on Task
Stairways	20
Elevator - Freight, and Passenger	20
Corridor	20
Toilet and Washrooms	20
Locker Rooms	20

Storage Rooms and Warehouses

Type Space	Foot Candles on Task
Inactive	6
Active	10
Rough Bulky	20
Medium	50
Fine	

Storage Yards

Type Space	Foot Candles on Task
Inactive	1
Active	20

Foot candles are minimum on task at any time. See Table 1 United States of American Standard All .1 for all other references to required levels of illumination.

Office Lighting

Systems for office lighting should be designed to provide satisfactory uniformity of illumination to permit flexible arrangement of office operations and equipment and to help assure more uniform brightness throughout the office area. Uniformity of illumination is considered satisfactory if the minimum value is two-thirds or more of the maximum value.

Corridors and Hallways

It is recommended that the amount of light in hallways be no less than 20% of that in adjacent areas. The illumination values recommended for hallways should be provided at floor level.

Temporary Lighting

General

Where temporary lighting is used in lieu of fixed systems, all means of access and walkways leading to work areas as well as work areas themselves shall be adequately illuminated. All temporary lights shall meet the requirements listed below.

Guards and Reflectors

Temporary lights shall be equipped with guards to prevent accidental contact with the bulb, except the guards are not required when the construction of the reflector is such that the bulb is deeply recessed.

Overloading Branch Circuits

Temporary lighting stringer or streamer shall be so arranged as to avoid overloading of branch circuits.

Hazardous Locations

Employees shall not be permitted to enter dark spaces without suitable portable light. The use of matches and open flame lights is prohibited.

Boilers, Heating and Cooling Equipment, Pressure Vessels, and Piping

General

Appliances shall be installed in a location in which the facilities for ventilation permit satisfactory combustion, proper venting, and the maintenance of ambient temperature at safe limits under the normal conditions of use.

Location

Boilers shall be located, when possible, in a detached building. When in the same building the boiler rooms shall be cut off by fire partitions, without openings, having a fire resistance rating of not less than two hours.

Power Boilers

Installation, Inspection, and Tests

Boiler inspection at prescribed intervals and approved (certification) by a recognized boiler inspection service will be acceptable evidence of satisfactory installation, maintenance and testing. Valid inspection certificates bearing the signature of the authorized inspector and the date of the last inspection shall be conspicuously posted. A certificate issued by the authority having jurisdiction may be accepted in lieu of a signed certificate of inspection.

Fittings and Attachments

Power boiler fittings and attachments such as safety valves, fuel supply cut off valves, gauge glasses, low water cut off, pressure gauges and other similar devices shall be in operating condition, of proper size and capacity, and meet the code requirements for safe working pressure.

Construction

All power boilers shall be manufactured, installed, operated, maintained and subjected to periodic tests and inspections as provided in the American Society of Mechanical Engineers Power Boiler Code and as required by the authority having jurisdiction.

Heating Boilers - Low Pressure Steam and Hot Water

General

All heating boilers shall be manufactured, installed, operated, maintained, and subjected to periodic tests and inspections as provided in the American Society of Mechanical Engineers Heating Boiler Code and as required by the authority having jurisdiction.

Fuel Cut-Off Devices

Steam and hot water boilers respectively shall be provided with automatic limiting devices for shutting down the burner(s) to prevent boiler steam pressure or boiler water temperature from exceeding the maximum allowable pressure or temperatures.

Safety Relief Valves

Steam and hot water boilers shall be equipped respectively with listed steam safety or pressure relief valves of appropriate discharge capacity and conforming to American Society of Mechanical Engineers requirements. Steam safety valves and pressure not to exceed the maximum allowable working pressure of the boiler.

Heating Equipment Other Than Steam or Hot Water Boilers

Limit Controls

Heating appliances using fuel shall be provided with automatic limit controls which will prevent overheating.

Automatic Shut-Down

Where air for combustion is supplied by a source which may be interrupted without shutting off the fuel supply, the fuel and atomizing or air supply shall be interlocked in a manner to immediately shut off the fuel supply upon failure of the atomizing or air supply.

Unit Heaters

Suspended type heaters shall be safely and adequately supported.

Gas-Fired Appliances

Heating appliances using gas for fuel shall meet the requirements of the United States of American Standard B31.1 for associated piping.

Electrical Appliances for Heating

Electric heaters shall be installed in accordance with the United States of American Standard C1. All exposed metal parts of fixed space heating equipment liable to become energized shall be grounded.

Pressure Vessels

Construction

Air receivers, after coolers, digesters, steam kettles or process vessels subject to pressure or vacuum shall be constructed to the requirements of the American Society of Mechanical Engineers Pressure Vessel Code Section VIII.

Inspection and Testing

Pressure vessels shall be inspected periodically and subjected to a hydrostatic test of one and one-half times the safe working pressure of the vessel annually.

Relief Valves

Pressure relief valves and vacuum relief devices where needed shall be provided to relieve pressure in excess of the safe working pressure.

Piping System

Pressure Relief Valves

Each piping shall include one or more pressure relief or other safety devices such as automatic shutoff valves when the maximum allowable inlet pressure to one or more of the pressure reducing devices supplying the system is greater than the maximum allowable operating pressure of the system. Proper protection shall be provided to prevent possible injury or damage by the discharge of gases from such devices.

Gauge

A pressure gauge or a valve connection for a pressure gauge shall be located at the outlet of each pressure reducing valve.

Supports

Piping and equipment shall be supported in a substantial manner, rigid enough to prevent excessive vibration, and anchored sufficiently to prevent undue strains on equipment served.

Hangers and Bracing

Suitable spring hangers, sway bracing, vibration dampeners, etc., shall be provided where necessary.

Protection of Piping

The arrangement of piping and supports as required above, shall provide for safety under working stresses and shall protect the piping from detrimental sagging, external mechanical injury, abuse, and exposure to unusual service conditions from sources other than those due to pressure, temperature and vibration.

Stop Valve

There shall be no intervening stop valve between the protective device or devices and the point of discharge.

Discharge

When discharging directly to the atmosphere, discharge shall not infringe on other piping or equipment and shall be directed away from platforms and other areas used by personnel.

Protection of Employees

Exposed steam and hot water pipes within 7 feet of the floor or working platform or within 15 inches measured horizontally from stairways, ramps, or fixed ladders shall be covered with an insulating material, or guarded in such manner as to prevent contact.

Identification

Positive identification of piping system content shall be by lettered legend giving the name of the content in full and abbreviated form.

Color Coding

Color bands, if used, shall be painted or applied on the pipes and should be installed at frequent intervals on straight pipe runs close to all valves.

Laboratory Safety

The "Ten Commandments" of Lab Safety

Violation of any of the following Safety Regulations may result in your dismissal from the lab course:

1. Never work in lab alone.
2. Never work in lab without wearing safety glasses unless given permission by the instructor to work without them.
3. Never pipette using your mouth.

4. Never conduct any unauthorized experiments.
5. Never use an unlabeled chemical.
6. Never substitute a chemical without prior consent of the instructor.
7. No eating, drinking, or smoking is allowed in the lab.
8. Never put waste chemicals into the wrong waste bottle.
9. Never put waste chemicals into the drains unless directed to by the instructor.
10. Accidents must be reported to the instructor.

Proper Handling of Glassware

Glass breakage is a common cause of injury producing accidents in laboratories. Only glass in good condition should be used. Discard pieces with chips and cracks. When using glass tubing, all ends should be fire polished. Lubricate tubing with glycerin or water before inserting into rubber stopper or rubber tubing. Protect hands with glove or towel when inserting the glass tubing.

Safe Storage of Gases and Liquids

All flammable liquids used in laboratories should be stored in approved safety cans. For those liquids not stored in safety cans, fire resistant, properly ventilated storage shall be provided.

Refrigerators and coolers used for storage of flammable liquids shall be used only if they are approved explosion proof. Commercial refrigerators can be made explosion proof by removing or locating and controlling all six possible sources of ignition. This solution is not considered satisfactory for storage of all types of flammable liquids. For laboratories considering purchasing new refrigerators or freezers, Underwriter Laboratories have approved several such appliances for the storage of flammable liquids.

All containers shall be clearly labeled, special chemicals and gases shall be dated and their owner identified so that disposal, if necessary, can be made safely. Quantities of gases and flammable liquids in any laboratory should be strictly controlled. Before leaving lab make sure to check that water and gases are shut off.

Control of Sources of Ignition

Explosion proof electrical equipment shall be provided in all areas where flammable vapors are present or could be produced. Non-explosion proof plugs, switches, motors and electrical contact shall be removed from areas which are subject to flammable vapors.

Ventilation

Proper ventilation is most important in controlling dissipation concentrates of flammable and/or toxic liquid vapors. Laboratory ventilation hoods should be of adequate size and in proper operating condition. Approved respirators shall be provided and used in areas where ventilation is insufficient to dissipate the toxic flammable vapors. Natural Ventilation shall be provided in long term storage rooms.

Hazardous Waste Disposal

Waste materials should be temporarily stored only in approved waste containers or laboratory disposal cans. Flammable liquids shall be kept out of laboratory sinks. Water solutions of certain liquids are flammable over a very wide concentration range.

Safety Apparel

Laboratory operations which introduce potential hazards to the well being of personnel will not commence until all personnel concerned are wearing the appropriate safety apparel. Safety gloves, shoes, glasses, eye shield, aprons, and respirators are examples of safety apparel available. The Safety Section is prepared to offer assistance and advice in determining the proper apparel needed for a particular operation.

Safety Showers and Eye Wash Fountains

Where the eyes or body of any person may be exposed to any injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area (within 25 feet) for immediate emergency use.

Compressed Gas

Immediately inspect all compressed gas cylinders in your possession or your work area.

Immediately remove from service any DOT-E 7235 4500 PSI cylinder that does not have a steel reinforcing ring on the neck area.

Immediately remove from service any DOT-E 7235 4500 PSI cylinder that has exceeded the 15 year service life. This life can be determined by the earlier date stamped on the neck of the cylinder. Pressure (i.e. hydrostatic) retesting cannot extend service life beyond 15 years.

Identify the last hydrostatic retest date stamped on the neck and remove the cylinder from service if the date is more than three years old.

Treat all compressed gas cylinders with caution and follow the manufacturer's recommended safe work practices when refilling (i.e. charging), handling, and disposing of any charged cylinders.

When using compressed air, do not use at a pressure greater than 30 PSI and wear safety glasses when using compressed air to clean things off.

GENERAL

Lifts

It is necessary to operate and use these facilities properly. It should be noted that the safe load limit of the lift car may vary. This limit is posted in each car in an obvious place. The following precautions should be observed when using the elevator:

- a. Do not tamper with any lift equipment.
- b. Report any malfunction of the lift to the Buildings & Grounds Supervisor immediately.

CRISIS MANAGEMENT PLAN

GUIDELINES FOR CRISIS MANAGEMENT

A crisis can happen at any time and can impact individuals, a single building or the entire College, depending on the nature of the crisis. The most important consideration in dealing with a crisis is the health, safety and welfare of the students, faculty and staff.

Communication within the College is very important in handling emergencies. Many situations impact more than one department. Regardless of size, there are certain persons who need to be called in particular crisis situations. This booklet is designed to give guidelines in handling emergencies along with persons to contact.

In situations of public interest, the President or Information Officer will be the only source of information to the press.

Emergency Telephone Numbers			
Officer	Name	Work Phone	Home Phone
President	Dr. John J. Cavan	434-949-1003	434-676-3690
Vice President of Finance & Administration	Peter G. Hunt	434-949-1005	434-447-6174
Provost, Daniel Campus	Dr. David Johnson	434-736-2005	434-676-3443
Provost, Christanna Campus	Dr. John J. Sykes	434-949-1019	434-848-4420
Building & Grounds Superintendent, Daniel	Dale Wooding	434-736-2055	434-767-4667
Building & Grounds Superintendent, Christanna	Roger Wray	434-949-1040	434-634-5394
Public Relations Officer	Christie Hales	434-949-1068	434-848-0962

For all emergency situations which require building evacuation, the following physical security controls will be implemented:

1. All employees will shut and lock their office doors prior to exiting the building.
2. IT staff will secure all MDF's, IDF's and wiring closets before leaving the building.
3. Buildings and Grouns staff will secure all computer labs, building exits, and and other doors as deemed necessary before they exit the building.

FIRE OR EXPLOSION

- Anyone detecting a fire should activate the fire alarm system and notify the switchboard operator during work hours, or the security guard when the switchboard operator is off-duty. The signal for the fire alarm is a continuous blast of the fire horns located throughout the buildings.

- The switchboard operator and/or security guard is responsible for notifying the local Fire Department, Rescue Squad (if needed), Sheriff's Office, Vice President of Finance and Administration, Buildings and Grounds Superintendent, and the President.
- If the fire alarm system is activated without report of fire, the switchboard operator will notify the Buildings & Grounds department. It is the responsibility of the Buildings & Grounds department (during normal working hours) and the Security Guard (after normal work hours) to check the buildings throughout to determine if there is a fire. DO NOT deactivate the fire alarm system until all areas have been checked and building evacuated. If fire is discovered, notify the Fire Department and other officials as listed above. If no fire is discovered, a note will be prepared stating what transpired and given to the Building and Grounds Superintendent for inclusion in the annual fire report to the Chancellor. The fire alarm may be reset by moving the toggle switch to the upward position at the station(s) that was used to activate the alarm.
- Whenever the fire alarm is heard, it is the responsibility of each instructor to evacuate his/her students to a point of 300 feet from the building. The evacuation route posted near the door of each room should be followed. Because elevators are not to be used during a fire, instructors will need to direct students to assist any handicapped students in their classes. In administrative areas, it is the responsibility of each supervisor to evacuate his/her area.
- The Buildings & Grounds Superintendent or a designated employee from the maintenance department will meet the fire department and direct them to the scene of the fire and will rope off or erect barricades to contain a safe area for all personnel not actively engaged in the fire fighting effort.
- Students and employees should stay clear of the buildings until an "all clear" signal has been given by the senior on-site administrator.

INJURIES

- Keep the injured person(s) quiet and calm.
- If needed, call the Rescue Squad or ask the switchboard operator to make the call.

Christanna Rescue Squad 911

Daniel Rescue Squad 911

- Contact the Buildings and Grounds Superintendent and/or the Vice President of Finance & Administration for possible first aid. The Nursing Department may be able to assist with initial first aid.
- Since the college does not maintain a medical staff on campus to administer to students, faculty, or staff, some first aid equipment and supplies may be found in these locations:

Maintenance Office

Welding Shop

Switchboard

Student Services Offices

Nursing Labs

- Advise the Vice President of Finance & Administration of the injury and emergency measures taken.
- Report all accidents to the Vice President of Finance & Administration Office and Student Services Office if the accident involves a student. All job related accidents require and Employer's Report of Accident to be filed by the employee immediately in connection with worker's compensation coverage.
- Any person injured on college property must be advised or assisted in obtaining medical assistance. This may require follow-up on initial recommendations that treatment be sought from a medical facility.

- Under no circumstances will college employees state that the college will be responsible for any cost involved relating to accidents.
- Immediate reporting of all accidents/injuries should give the facts of how, what, where, when, and who was involved.

ASSAULT and RAPE

- In the event of rape and/or serious assault, render first aid to the victim. Accompany the victim to the hospital if necessary.
- The Vice President of Finance & Administration or the Provost will contact the Sheriff's Department and the victim's parent, guardian, spouse or next of kin.
- Obtain as much information regarding the assailant and incident as possible.
- Notify Buildings & Grounds Superintendent.

Christanna 1040 - Daniel 2055

Notify Vice President of Finance & Administration

Christanna 1005 - Daniel 2015

Notify the Provost

Christanna 1019 - Daniel 2005

Phone Police - Christanna - Sheriff 848-3133 or 911

State (434) 424-6820

Daniel - Sheriff 434-542-5141 or 911

State 1-800-552-0962

NOTE: The President or the Information Officer will be the only source of information to the Press.

CHEMICAL SPILLS

- In the event of a chemical spill inside the building, evacuate the area immediately.
- Notify the Buildings & Grounds Superintendent immediately. Also contact the Vice President of Finance & Administration. After assessing the situation, the Vice President will contact the Fire Department if necessary.
- For chemical spills outside the building, insure that all students, faculty and staff remain inside the building.
- The Buildings & Grounds Superintendent will shut off all outside air ventilators to keep chemical fumes out of building.
- Keep telephone lines clear for emergency calls only.

GAS LEAKS

- Evacuate the building immediately following the evacuation route posted near the door of the each room.
- Notify the Buildings & Grounds Superintendent and the Vice President of Finance & Administration. The Buildings & Grounds Superintendent will turn off the main gas valve and contact the Fire Department.

- Keep faculty, staff and students a safe distance until the problem has been corrected and an "all-clear" signal has been given by the senior administrator.

BOMB THREATS/TELEPHONE THREATS

- Anyone receiving a threatening call should try to keep the caller on the phone as long as possible; write down the phone number from caller ID if available; first, by asking if the caller will speak to the President or Vice President of Finance & Administration; if not, by asking questions from the checklist below. Do not convey a feeling of excitement or confusion. Keep calm during the conversation. Do not mention the call to anyone except the President, Vice President of Finance & Administration, or other Administrator on duty.
- Immediately report the threat to the President, Vice President of Finance & Administration, or Administrator on duty.
- The President, Vice President of Finance & Administration or Administrator will sound the fire alarm to evacuate the building. Standard fire evacuation procedures will be followed. Administrators and buildings & grounds workers must report to the Vice President of Finance & Administration for further instructions.
- The President, Vice President, Administrator present or their designee will call the Sheriff's Department, Fire Department, and State Police to stand by for possible action.
- All personnel will be advised concerning re-entry of the building.
- The President, Vice President or Administrator on duty will notify the Chancellor's office of the bomb threat. Every effort will be made to find out the name of the person(s) making the threat.

Bomb Threat Check List: Date_____Time_____Length of Call_____Age_____Male_____

Female_____Accent: (Southern, Northern, European, Asian, etc.)_____

Background: Quiet, Noisy, Pay Phone, Music, Bar, Pool Room, People, Names, Plant Noises

Text of Conversation (as detailed as possible):

Where possible, ask the following questions: Where is the bomb? What time is it set to go off? What does the bomb look like? In what area of the school? Why are you doing this? Why are you picking on this college? What do you have against Southside Virginia Community College? Who are you? When you ask this question, the caller will probably hang up.

Authorities to be involved:

Police Christanna (434) 424-6820 or 911;

Daniel 1-800-552-0962 or 911

Explosion Ordinance Disposal - Fort Lee - (434) 734-5555

President 1003-C, 2001-D

Vice President of Finance 1005-C, 2015-D

Provosts 1019-C, 2005-D

Building & Grounds 1040-C, 2055-D

Public Relations Officer 1068-C, 2058-D or Designee

Consider the safety of faculty, staff and students as the prime factor. If advised, direct faculty, staff and students to safe areas of the campus. Nothing is to be touched or altered.

Do not re-enter the building until authorized.

Alert staff of situation and do not search for any bomb until the police arrive.

The recommendation to close the college will be made only after consultation between the President, the respective Provost, and the Vice President of Finance & Administration.

If a call is received in the evenings, notify the student services office (ext. 1063 Christanna) or the security/maintenance personnel (ext. 1040). If unsuccessful in contacting the guard, call the Sheriff, 911 or (848-3133/C; 542-5141/D). On the Daniel Campus notify the night custodian by radio or by telephone ext, 2325 or by cell phone, 434-390-7208. The night maintenance man will notify immediately the Buildings and Grounds Superintendents, the respective Provost, the President, and the Vice President of Finance and Administration.

NATURAL DISASTER OR ATOMIC ATTACK

- Each class and office area will be notified of an impending disaster by the Provost's Office or the Vice President of Finance & Administration.
- Students and staff should seek shelter in interior corridors and restrooms.
- Keep away from windows and doors to avoid shattering glass.
- Do not have students, faculty or staff go outside until advised to do so. If the building is unsafe, dismiss classes one at a time through safe exits.
- If possible, set up a first aid center and refer injured persons for treatment.
- In the event of nuclear attack, turn off all ventilation until fallout has passed.

HARASSMENT, THREATS, SUSPICIOUS PERSONS

- In the event of harassment or threats to students, faculty or staff, notify the Provost and the Vice President of Finance & Administration. These individuals will contact this appropriate officials if needed.
- Notify the Building & Grounds Superintendent and Vice President of Finance & Administration concerning any suspicious persons on campus.
- If the situation requires banning a person from campus, the Vice President of Finance & Administration will contact the local Sheriff's Department to have a written notice issued. The Vice President will also notify the College security of the situation.

SUICIDE THREATS

- Intervention by college personnel may include the following:
 - a. Focus on the individual's needs, let them talk.
 - b. In severe cases, insure the safety of the individual through supervision at all times.
 - c. Try to determine the extent of suicidal thinking and the person's potential plan.
 - d. Contact spouses or parents.
 - e. Call 911 if necessary.

- Contact the Provost and/or Director of Student Activities concerning the situation. The Provost may refer the individual for on-campus or off-campus counseling services.

SUICIDE ATTEMPTS

- Handle suicide attempts as a medical emergency by calling 911.
- Notify the President, Vice President of Finance & Administration, and the Provost.
- The Public Relations Coordinator may be contacted by the President if necessary.

VANDALISM OR THEFT

- If vandalism or theft are discovered in process, call the Sheriff's Office and the State Police. DO NOT TRY TO APPREHEND THE OFFENDER(S) INDIVIDUALLY (unless the person(s) is a minor or non-threatening).
- Notify the Buildings and Grounds Superintendent, the Vice President of Finance & Administration, and the Provost.
- If the vandalism or theft has already occurred, the Vice President of Finance & Administration will determine whether to call the Sheriff's Office or State Police to investigate the occurrence.
- If the college property is involved, the Vice President of Finance & Administration will prepare necessary insurance reports using information provided by those who witnessed or discovered the incident.
- If student property is involved, the Vice President of Finance & Administration will advise the student to call the Sheriff's Department and/or State Police if related to a vehicle.

Southside Virginia Community College
Safety Plan
Bloodborne Pathogen Exposure Control Plan

I. Introduction

The OSHA/VOSH 1910.1030 Bloodborne Pathogens Standard was issued to reduce the occupational transmission of infections caused by microorganisms sometimes found in human blood and certain other potentially infectious materials. Although a variety of harmful microorganisms may be transmitted through contact with infected human blood, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV) have been shown to be responsible for infecting workers who were exposed to human blood and certain other body fluids containing these viruses, through routes like needlestick injuries and by direct contact of mucous membranes and non-intact skin with contaminated blood/materials, in the course of their work. Occupational transmission of HBV occurs much more often than transmission of HIV. Although HIV is rarely transmitted following occupational exposure incidents, the lethal nature of HIV requires that all possible measures be used to prevent exposure of workers.

This exposure control plan has been established by Southside Virginia Community College in order to minimize and to prevent, when possible, the exposure of our employees to disease-causing microorganisms transmitted through human blood, and as a means of complying with the Bloodborne Pathogens Standard. All employees who are exposed to blood and other potentially infectious materials as a part of their job duties are included in this program. (See Section II-Exposure Determination for a discussion of job categories and tasks that have been identified as having exposure.) This plan will be reviewed at least annually and updated as necessary by the office of the Vice President of Finance and Administration. Copies of this plan are available (for review by any employee) in the following locations:

Vice President of Finance & Administration's office
Head of Nursing Program's office
Buildings & Grounds Supervisor's office

II Exposure Determination

All job categories in which it is reasonable to anticipate that an employee will have skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (listed below) will be included in this exposure control plan. Exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment).

List A – All Employees Are Exposed

All employees in job categories listed here are included in the plan.

COMMUNICATING WITH THE MEDIA IN TIMES OF CRISIS

1. The primary goal should be to keep the public informed about the crisis while trying to maintain the privacy of students and ensure as little interruption of the educational process as possible
2. As soon as possible, prepare a written statement that gives the basic facts clearly and concisely or ask the Public Relations Officer to prepare one for you. News people will always want to know who, what, when, why and how. Try them out on your colleagues and see if they have any recurring questions. Use the same facts in dealing with all media so the story is consistent.
3. If news media personnel arrive on campus while students are in class, guide their activities so they will not disrupt the education process. The news media can come onto the campus but should not be permitted to enter classrooms.
4. Don't presume to tell a reporter what is or isn't newsworthy. That decision is made by the reporters and their editors. And never, absolutely never, lie to a reporter. Tell the bad news quickly; get it over with. It may be your only chance to set the best source for information from other sources and play the story more sensationally - and perhaps less accurately. Protecting and enhancing the College's credibility is important.
5. Talk conversationally, or you inadvertently pitch your voice up and sound strained. If you don't understand the question, say so. Parroting the reporter's question is very dangerous on radio or video tape because the tape can be edited to sound like you concur whether you do or not. Suppose the reports asks, "How are you handling this terrible shock?" Don't respond, "We are handling this terrible shock by" Instead, respond in your own words.
6. Answer each question and then be silent. Stick with the statement. Don't embellish it and don't respond to media pressure to chat about it. Just because a TV reporter sticks a microphone in your face or a radio reporter lets the tape run does not mean you have to fill that prolonged silence. Don't worry . . . your pauses will be removed in the editing process. If you are standing for the interview, don't back up, even though a microphone seems to be put down your throat. Plant your feet firmly and stand your ground. Suggest that everyone sit down if you need "space"
7. Remember that conflict is news, and reporters often frame their questions to bring out the conflict or emotion in a story. Guard your staff and students against such intrusions if grief is involved in the response.
8. If a reporter asks several questions at once, say something like, "You've asked me several questions . . . where would you like me to begin?" If a reporter interrupts you before you've finished answer a question, pause, let the reporter finish, and then continue your answer. Don't let the reporter get you off track or tell you when you've finished your answer. However, don't go into lengthy detail or run off with the interview either.
9. Don't let a reporter's friendly, sympathetic manner disarm you into giving him/her additional information. Don't assume any chatty comments "are off the record" even if you say they are. Keep in mind that the media aren't in business to help you with your communication needs; the media are in business to (1) to make money and (2) disseminate news. "News" can be defined as any information of interest to the public.
10. Reporters are under constant deadlines, but no deadline is so important that it's worth making and inaccurate statement. If a reporter says he/she has deadline problems, ask how long you have to get the information, and then try to obtain it within that amount of time. Don't put reporters off; they will only get more insistent and abrasive if you do so.
11. It is best not to answer a query with "No comment." Otherwise, the reporters may report you wouldn't answer questions or may interpret for themselves why you aren't answering. Instead, say, "I can't share that information with you right now, but I will call you as soon as I can release it." Or say, "I don't know the answer, but I should have it in a hour. Please call me." If you can't reveal information at all, tell the reporter why.
12. After you provide the written statements to the media or answer subsequent questions, keep a media log of whom you speak to and what you give them, whether it is the basic statement or a subsequent update. This allows you to track which medium received what information.

13. Don't ask a reporter for editing rights or to see the story for approval before it runs. Most news media have specific policies preventing this. Reporters may well interpret these request as insults or a slight on their importance. Don't complain to the media if you feel you were treated unfairly.

UNAUTHORIZED ASSEMBLIES OR DEMONSTRATIONS

When unauthorized assemblies or demonstrations occur, these steps should be taken:

Buildings and Grounds staff will lock trailers

Division Chairman will lock storage rooms and all rooms containing pilfer able items.

Audio Visual Department and Library will be locked

Bookstore will be closed

Dean of Enrollment Management will secure and lock all student records and registration books.

Counseling will secure and lock all student records

Whenever a group gathers without permission on the grounds of the College or in one of the buildings for the express purpose of announcing a dissatisfaction or a grievance, either about the College or to express their political views, this will be considered an unauthorized assembly.

The group will be advised by the College President, or in his absence, the Vice President of Finance and Administration or the Provost that (1) a hearing of any grievance will be arranged upon request and (2) College officials will not negotiate under conditions of duress.

If the unauthorized assembly is not connected with a grievance, the group will be advised by the President, or in his absence, the Vice President of Finance and Administration or the Provost of the above and (1) notified that they are trespassing in violation of law and are forbidden to remain and (2) asked to disband or face legal action.

If the group does not disband (allow 30 minutes), the administrator in charge may elect to call State Police (telephone C-(434) 424-6820; D-1-800-552-0962) or the county Sheriff (Christanna-848-3133, Daniel - 542-5141) and prefer charges for violation of the trespassing law.

WHO'S IN CHARGE WHEN THE PRESIDENT IS AWAY

- It is understood that the President of the College is charged with the responsibility of faculty, staff, and students. Therefore, it is the responsibility of the President to designate an administrator to be responsible and to make decisions during a crisis in his absence.

Precautionary Actions

The President's list of designees are:

Dr. David Johnson, Provost, Daniel Campus

Dr. John J. Sykes, Provost, Christanna Campus

Peter G. Hunt, Vice President of Finance and Administration

Senior person present if none of the above are present.