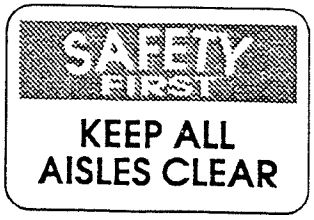
DEAF SMITH COUNTY

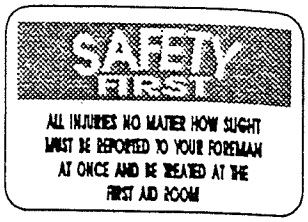
SAFETY

POLICY

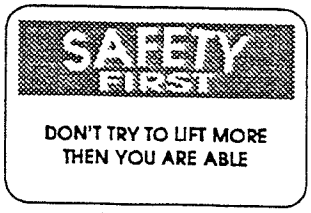

SAFETY FIRST
KEEP THIS AREA SAFE AND CLEAN

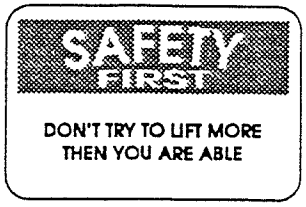

SAFETY FIRST
KEEP ALL AISLES CLEAR


SAFETY FIRST
GOGGLES REQUIRED


SAFETY FIRST
ALL INJURIES NO MATTER HOW SLIGHT MUST BE REPORTED TO YOUR FOREMAN AT ONCE AND BE TREATED AT THE FIRST AID ROOM

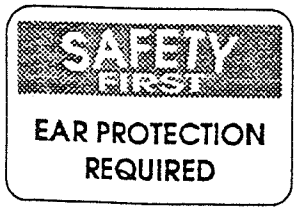

SAFETY FIRST
DO NOT ENTER UNLESS WEARING SAFETY EQUIPMENT

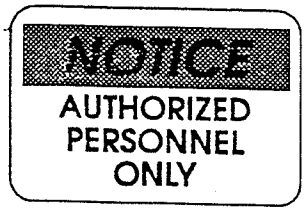

SAFETY FIRST
DON'T TRY TO LIFT MORE THEN YOU ARE ABLE

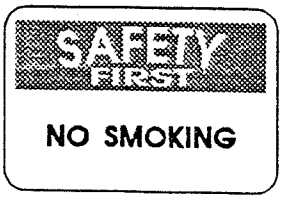

SAFETY FIRST
DON'T TRY TO LIFT MORE THEN YOU ARE ABLE

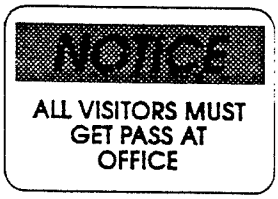

SAFETY FIRST
EYE PROTECTION REQUIRED

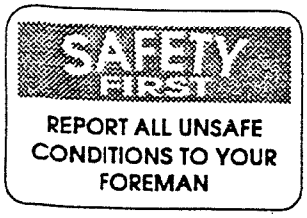

SAFETY FIRST
DON'T TAKE CHANCES


SAFETY FIRST
EAR PROTECTION REQUIRED

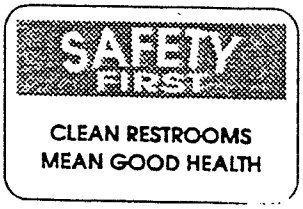

NOTICE
AUTHORIZED PERSONNEL ONLY


SAFETY FIRST
NO SMOKING


NOTICE
ALL VISITORS MUST GET PASS AT OFFICE


SAFETY FIRST
REPORT ALL UNSAFE CONDITIONS TO YOUR FOREMAN


SAFETY FIRST
THE SAFE WAY IS THE BEST WAY


SAFETY FIRST
CLEAN RESTROOMS MEAN GOOD HEALTH


SAFETY FIRST
CLEAN UP SPILLS

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HAZARD COMMUNICATION POLICY

All chemicals are potential health hazards; therefore, it is the policy of this county that compliance with the federal codes and state rules and regulations will be strictly followed by employees and supervisors.

Each county department will prepare a list of all solid, liquid, and gaseous chemicals being used or stored at all locations where employees congregate or perform their assigned duties. It shall be the responsibility of the department's elected official, manager or supervisor to prepare the aforementioned list and contact the chemical manufacturer and obtain the corresponding Material Safety Data Sheets (MSDS) for each of the chemicals indicated on the list MSDS sheets will be placed in a protective prominently labeled binder that is accessible to employees. The chemical list and MSDS sheets will be kept current and cross checked quarterly and updated as necessary by the department head.

When ordering replacement chemicals, the responsible party shall require as part of the purchase, that the manufacturer provide one copy of the MSDS sheets by return mail and attach one copy of the MSDS sheets to the materials when delivered. No materials should be accepted without the MSDS sheets. All chemicals must be labeled with approved labels by the manufacturer or the County. Labels will be affixed to the container in a location where employees can easily identify the material.

When chemicals are transferred from their original container, the receiving container must be of an approved type and be labeled. If the transfer of chemical is for immediate use, the labeling is not required. Immediate use generally means the complete use of the chemical during that work shift.

The department's elected official, manager or supervisor is responsible to train all employees who may come in contact with the chemical hazards. Employees must know:

-The hazards of the chemicals being used.

-The appearance or smell of the hazardous chemical to which they may be exposed.

-How to locate, understand and read a MSDS sheet.

-How to properly use, store, and transfer the material in a safe manner.

-What personal protective equipment is required while using protective equipment.

-Emergency response and clean up procedures in the event of contamination or spill.

EMERGENCY RESPONSE POLICY

In the event an accident occurs, each employee should take the necessary emergency response as outlined below:

PERSONNEL INJURIES

If an employee is injured, other employees' in the immediate area should assist the injured. The senior employee on site shall have the responsibility to assess the severity of the injury and is authorized to take the action indicated below:

-Provide first aid to the injured.

-Take injured to the county's designated physician or clinic.

-Contact an Emergency Medical Services (EMS) or ambulance.

For severe injuries, provide first aid as necessary, make the injured as comfortable as possible, (but do not move the injured party) and call or have another employee call:

911

If the injury is not severe but needs a physicians attention, the supervisor shall escort the injured employee to:

Hereford Medical Regional Hospital
or
The Employee's Personal Physician

FIRE

If a fire occurs each employee should:

-Protect injured persons from further danger.

-Sound an alert to notify persons in the area.

-Evacuate the facilities.

-Call the fire department at: **911**

-Attempt to extinguish the fire using the proper equipment.

BOMB THREAT

In the event of a bomb threat, all employees should evacuate the facilities. Get far enough away to prevent injury from flying glass and debris and call:

911

HAZARDOUS MATERIAL INCIDENT

Chemical spills or exposure to chemical accidents can be extremely hazardous. Often the chemicals involved can change from dormant to volatile when exposed to the environment or in contact with other materials. Evacuate all employees where a hazardous material incident occurs and then call:

Deaf Smith County Sheriff's Department
235 East Third
Hereford, Texas
(806) 364-2311

(Caution!!!-Local fire or police units may not have the required certifications or equipment to respond or clean up an incident; therefore, Investigate a qualified source to respond.)

GENERAL SAFETY RULES

The following rules will be applicable to all work areas. These rules, together with those developed by the combined efforts of the department heads and their employees, are helpful in promoting safety consciousness and reducing accidents.

1. Employees shall not turn on, use, repair, or operate any Employees shall not turn on, use, repair, or operate any machine, tool, vehicle, crane, electricity, gas, steam, air, acid,caustic or other dangerous material or equipment unless authorized by a supervisor and have been trained in the proper safety precautions.

2. Safety guards and devices furnished by the county or the department will be used.

3. Approved personal protective equipment will be worn.

4. Only a tool, equipment, machine, etc. that is properly maintained and adjusted may be used.

5. Tools may not be modified.

6. Floors must be kept free of paper clips, pencils, rubber bands, trash, coffee, food, and any other material or debris that might cause someone to trip or slip. Employees responsible for such material or substance spilled shall clean it up immediately

7. Horseplay, running, and practical jokes are prohibited because potential slipping, tripping and collisions.

8. Immediately report all injuries to supervisor.

9. Supervisor shall file proper papers with the County Treasurer within 3 days.

CLOTHING AND SAFE DRESS

1. Wear clothing appropriate to work assignments. Clothing should be clean and in good condition.

2. Supervisors are responsible for ensuring that employees are informed of the requirements for clothing that is suitable for the work to be performed.

3. For those working with machinery or in other hazardous operation, all wearing apparel should be well fitted, with no loose or flowing appendages. Sleeves, if full length, should be buttoned at the wrist. Never work without a shirt.

4. Employees must wear shoes. Shoes should be well-fitted with good soles and heels that completely cover the foot. Open-toe shoes, or lightweight shoes of the canvas "sneaker" type may not be safe. Safety shoes or safety toe caps are mandatory in foot-hazardous work.

5. Employees with long hair who work around moving machinery must wear adequate hair covering to avoid entanglement.

6. Jewelry such as rings, pendants, necklaces, earring, watches, shall not be worn whenever they constitute a hazard. Working around moving machines, electrical or electronics equipment would be an example of this.

PERSONAL PROTECTIVE EQUIPMENT

GENERAL

1. Protective equipment for eyes, face, head, back, protective clothing, respiratory device, and protective barriers shall be provided and used wherever necessary.

2. Where employees provide their own protective equipment, the department shall be responsible to assure its adequacy, including proper maintenance and sanitation.

3. Protectors shall:

   A. Provide adequate protection.
   B. Be comfortable.
   C. Fit snugly and not interfere with physical movement.
   D. Be durable.
   E. Be capable of being disinfected.
   F. Be easily cleaned.

4. Personal protective equipment shall comply with the standards of the American National Standard Institute, Bureau of Standards, or other recognized authorities.

5. Protectors shall be maintained in a sanitary and reliable condition at all times. Safety devices, including protective clothing worn by the employee, shall not be interchanged among employees until properly cleaned. When ordinary cleaning will not remove the risk of infection, additional precautionary measures may be required.

BODY

1. Other body protection may be required for employees whose work exposes parts of their body.

2. Appropriate clothing shall be worn at all times.

3. Clothing saturated with flammable liquids, corrosive substances, irritants or oxidizing agents shall be removed and shall not be worn until properly cleaned.

EAR

1 Ear protection shall be provided by the county and used by employees whenever noise levels are high.

2. Supervisors whose employees are engaged in noisy operations or who work in noisy areas, will be responsible for ensuring the use of approved hearing devices.

3. Employees must wear an appropriate hearing protection device whenever exposed to hazardous noise. (Hazardous noise is determined when it is difficult to hear a loud spoken voice at a distance of one (1) foot.

4. Ear plug type hearing protective devices are recommended.

5. Cotton is not an acceptable protective device.

6. Ear protectors should be washed with mild soap and water after use. Dirty equipment may cause infection.

EYES AND FACE

1. Employees working in locations where eye hazardous substances, or strong light rays are inherent must wear eye protection.

2. The employer shall provide suitable protection.

3. Visitors who are exposed to eye hazards will be provided with protective eyewear by the county.

4. Face and eye protection equipment shall be kept clean and in good repair. The use of the equipment with structural hazards or defects shall be prohibited.

5. Only safety eyewear or face wear which meets the American National Standards Institute (ANSI)-Z87 standard is permitted.

6. To protect against radiant energy when welding, burning, or cutting, the use of welding filter lenses shall conform to the following shade specifications:

-Arc weld over 400 amps	Shade 14
-Arc weld 200-400 amps	Shade 12
-Arc weld 75-200 amps	Shade 10
-Arc weld 30-75 amps	Shade 8
-Heavy gas weld and cutting	Shade 8
-Arc weld up to 30 amps	Shade 6
-Medium gas weld and cutting	Shade 6
-Light gas weld, cutting and brazing	Shade 5/4

7. Full face shields, chemical splash goggles or hoods with shields, shall be worn when exposed to or handling caustics, acids, or cryogenic liquids.

8. In laboratories, it may be necessary to perform demonstrations involving potentially hazardous operations so that employees can observe certain reactions. Transparent shields or barricades may be used. Even if a shield or barricade is utilized, the demonstrator and employees are at increased risk, and must therefore wear adequate personal eye protection.

9. Persons who wear contact lenses face additional eye dangers. In eye hazard areas, they are required to wear goggles or face shields instead of safety glasses.

FEET

1. Appropriate foot protection is required for employees who are exposed to hot corrosive, poisonous substances; falling objects, crushing, or penetrating actions which may cause injuries, or who are required to work in abnormally wet locations.

2. Defective or inappropriate footwear should not be worn.

3. Safety footwear must meet ANSI Standard requirements.

4. Full coverage work or dress shoes must be worn in shops, laboratories. and other areas designated as foot hazard areas. Open, high heel, or canvas shoes will not be worn in these areas.

HANDS

1. Hand protection may be required for work involving unusual and excessive exposure to cuts, burns, corrosive irritants, allergenic or other harmful substances.

2. Wearing gloves by a machine operator is not advisable. Gauntlet or loose-cuff gloves are not permitted around moving machinery.

3. Employees performing industrial work should equip themselves with general purpose gloves. Cotton or fabric gloves are suitable for protection against dirt, slivers, chafing, or abrasions. Leather gloves are more effective in resisting moderate heat, chips, and rough objects. Special purpose gloves such as chrome-tanned leather gloves, rubber gloves, chemical-resistant gloves, etc. should also be considered.

LIFTING AND MANUAL MATERIAL HANDLING

GENERAL RULES

This county recognizes the fact that lifting and material-handling type injuries make up a major portion of our risk for employee injury. We also recognize that in order to reduce the risk of this type of injury, we must find alternatives to manual lifting and manual material-handling. Employees are to follow these procedures when handling materials:

1. Try to eliminate the need for lifting or reduce the risk for lifting injuries through:
   A. Organizing storage of materials.
   B. Limiting bulk and weight of materials to be lifted. Keep package sizes manageable. (Remember that bulky and awkward objects cause most material-handling injuries.
   C. Keep aisles clear when carrying materials to prevent trips, stumbling, etc.
   D. Make sure you are aware of the weight of the object. Under-estimating or over-estimating the weight of an object can lead to injury.
   E. Wipe off wet, greasy, or slippery objects before handling them.

2. Use mechanical lifting devices whenever possible, rather than lifting manually. If the appropriate device is not available, contact your supervisor or someone on the Loss Control Committee so management can plan and budget those items.

3. Lift as a last resort, if mechanical aids are not available. This county recognizes that all lifting cannot be eliminated. When lifting alone, follow either of the appropriate lifting procedures below:
   A. Two hand squat lift involves six (6) steps:
      1. Keep feet parted -one alongside and one behind the object.
      2. Keep back straight, nearly vertical.
      3. Tuck elbows and arms in and hold load close to body.
      4. Grasp the object with your whole hand, not just the fingers.
      5. Tuck your chin in.
      6. Keep body weight directly over feet.
   B. Assisted one-hand lift should be used when it is impossible to bend the knees and squat. Reaching over into a container to lift something would be a good example of this.
      1. Place the non-lifting hand on the container top, bend over the container.
      2. While bending over, kick the foot on the same side as the non-lifting hand rearward to provide forward body balance. (optional)
      3. Reach and grasp object to be lifted.
      4. Push down with the non-lifting hand on the container top raising the upper body to a vertical position. Be sure to let the non-lifting arm do the work, not the back.
      5. Remember, this technique is not always practical. This type of lift should be limited to a load weight of 15-20 lbs.

C. Twisting the body should always be avoided. Turn your body as a whole unit to reduce the risk of an injury while lifting and carrying loads.

D. It is impractical to establish a definite limit on how much weight can be lifted; however, based on an infrequent lift, the following chart can be used as a guideline. This is based on a normal lift (with no twisting) of a standard size tote box (19" x 13 1/2 x 5 1/2). Allowances should be made if the object is bulkier than this, by decreasing the allowable weight.

Height of Lift	Work Force	Percentage of People who can lift		
		90%	75%	50%
Floor to Knuckle Height	Men	37 lbs	45 lbs	54 lbs
	Women	28 lbs	33 lbs	37 lbs
Knuckle Height to Shoulder Height	Men	34 lbs	43 lbs	54 lbs
	Women	25 lbs	29 lbs	34 lbs
Shoulder Height to Arm Reach	Men	29 lbs	39 lbs	49 lbs
	Women	24 lbs	26 lbs	29 lbs

4. If the employee will be lifting more than one (1) time per minute, these figures should be reduced.

5. Employees who will be lifting objects on the job should keep themselves in good physical condition. If you are going to be lifting objects that are heavy, or lifting for a prolonged period, take time to do some stretching and warm up exercises prior to starting the job.

OFFICE EQUIPMENT

SAFETY RULES FOR COPY MACHINES

1. There are two basic types of office copy machines. (1) dry photo copiers that use a powder toner material, and (2) wet photo copier that sometimes use combustible hydrocarbon-based toner.

2. All photocopiers, regardless of manufacturer, emit fumes at varying levels. Some are more odorous than others. It is recommended that all copiers be located only in areas that have adequate ventilation.

3. Duplicating machines that use spirit fluids are potentially hazardous because they contain methanol, and/or other toxic and explosive chemicals. These duplicating units require considerable ventilation. Ways to keep exposure to duplication fluid hazards to a minimum include:

   A. Adjust machines so that a minimum of fluid is used.
   B. Locate machine in adequately ventilated room(larger than 100 square feet).
   C. Limit the operating time.
   D. Keep a fire extinguisher near the room.
   E. Do not permit smoking or eating while operating the machine. Keep machine away from open flames or fluid.
   F. Do not store duplicating fluid in cardboard boxes near the machine. Instead store them in a metal cabinet in a cool location.

4. Material Safety Data Sheets (MSDS) for the chemicals used in these processes should be posted in a central location and all employees who are required to service the machines must be trained in the proper use of the chemicals on a yearly basis.

ELECTRIC EXTENSION CORDS FOR OFFICE USE

1. Flexible cords should be in good repair and must bear the Underwriters Laboratory label (UL) or meet NFPA 70 standards. Do not use frayed or damaged cords

2. Only use three wire (grounded) electrical cords.

3. If the permanent electrical system does not have a ground circuit, only connect the extension cord to a Ground Fault Interrupting device (GFI).

4. Flexible cords should be short (6-8 feet in length), limited to temporary use. Never cross traveled pathways unless suitably protected to avoid damage or tripping hazards.

5. Do not use two-wire flexible cords and adaptor plugs because equipment is not grounded when connected to them.

6. Never splice any flexible cord or electrical cord.

7. Never tack cords to walls, etc. Keep cords away from pinch-points and hot or wet surfaces. Never string cords across the ceiling, over pipes, or near sinks, and never place cords or plugs under physical stress or tension (See "Electrical Safety," for additional details.)

OFFICE SAFETY

1. Pencil sharpeners shall not be installed where they might be an obstruction.

2. Electric cords must be kept in good repair. Replace cords when outer insulation is broken. All cords must bear U.L. label.

3. Equip fans with suitable guards. Do not place fans where they might be struck.

4. Thumbtacks and other sharp, pointed objects should be kept in container, not loose in desk drawers.

5. Fasten individual upright shelves, lockers and cabinets to floors or walls, if the possibility of overturning exists. Where there are two (2) or more, fasten them together.

6. Do not open more than one (1) drawer of a file cabinet at one time. Close drawers when not in use.

7. When it is necessary to store material on top of lockers or file cabinets, regard the weight, shape, and stability of the material.

8. Have defective chairs repaired or replaced promptly.

9. Do not tilt back in straight chairs.

10. Use care when cleaning glass used for desk tops.

11. Use knives, razor blades, scissors or shears with care. Sheath cutting edged instruments when not in use.

12. Equip paper cutters with a safety bar. Adjust blade spring tension so that the blade will not fall from its own weight.

13. Arrange desks so that electrical and telephone outlets and leads are not tripping hazards.

14. Repair or replace splintered or jagged edges, or other defects found on office equipment.

15. Spindle (spike) files should not be used.

16. Before using office machines, be sure they are properly located and not in danger of falling.

17. Never clean or lubricate electrical appliances when they are in operation.

18. Protection should be provided against moving parts on addressograph, bookkeeping, tabulating machines, and other types of power-driven office equipment.

19. Do not put broken glass in wastebaskets. Broken glass should be packed in heavy paper, marked "broken glass" and placed alongside the wastebasket at the end of the day, so that the person removing waste paper will not be cut accidently.

20. Distorted or damaged metal or wire baskets should be repaired or replaced promptly, since sharp edges and points can cause injury.

21. Small ladders and stands must be equipped with treads of non-slip material and safety feet.

22. Ladders having broken or split rails or steps shall be destroyed.

BUILDINGS

ADMINISTRATIVE RESPONSIBILITY FOR BUILDINGS

The responsibility for the condition of all buildings and equipment rests with the department(s) occupying the building. However, the Loss Control Committee may be called upon at any time for assistance.

BUILDING INSPECTIONS

Occupants of buildings should make periodic inspections to keep hazards at a minimum in all areas, covering such items as:

1. Good housekeeping.

2. Condition of stair treads, floor tiles, and carpeting.

3. Exposed electrical and telephone outlets on the floor.

4. Loose stairway railings.

5. Windows for cracked glass.

6. Walls and door frames for protrusions.

7. Office furniture and machines in need of repair.

8. Proper storage of material.

9. Adequate lighting and ventilation.

10. Insects and other pests.

11. Locks on security doors.

Departments should document discrepancies found and submit requests for correction to the Loss Control Committee.

CORRIDORS AND AISLES

1. Corridors.
   A. Corridors and means of egress shall be the designed and maintained to have adequate headroom, but in no case shall ceiling height be less than 7 feet 6 inches nor projections from the ceiling be less than 6 feet 8 inches from the floor.
   B. The required width of corridors shall be unobstructed.

2. Aisles.
   A. Every Portion of every building in which there are seats, tables, equipment or similar materials installed, shall be arranged and spaced to provide not less than 6 feet 8 inches headroom to a safe means of egress from the building. In existing installations, which do not comply with the minimum headroom clearance and is impractical to correct, a suitable warning sign shall be placed near or on the obstruction and padded.
   B. Where aisles are required, equipment, parts and stocks shall be arranged and spaced to provide not less than 6 feet 8 inches headroom to a safe means of egress from the building. In existing installations, which do not comply with the minimum headroom clearance and is impractical to correct, a suitable warning sign shall be placed near or on the obstruction and padded.
   C. Aisles leading to exits shall be a minimum of 44 inches unobstructed.

DOORS

1. Exit doors should open to the outside of the building. When fully opened, the door shall not obstruct the exit width or impede the flow of traffic from any other route.

2. Every required exit doorway shall be of a size as determined by NFPA standards for occupancy of the building. The size of the exit shall not be less than 28 inches in existing structures and shall not be less than 32 inches in any new or newly remodeled structures that the County owns or operates. These exits must also be capable of handling the occupant load of the building in accordance with NFPA 101 Life Safety code.

3. Exit doors shall be operable from the inside without the use of a key or any special knowledge or effort.

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

5. A door designed to be kept normally closed as a means of egress, such as a door to a stair enclosure or stairwell, shall be provided with a reliable self-enclosing mechanism, and shall not at any time be secured in the open position. Signs should be posted on such doors.

6. When a door is required to be equipped with panic hardware, the panic hardware shall cause the door latch to release when sufficient force is applied to the releasing devices in the direction of exit travel. No lock, padlock, hasp, bar, chain, or other device, or combination thereof shall be installed or maintained at any time or in connection with any door on which panic hardware is required if such device prevents or is intended to prevent, the free use of the door for purpose of egress.

7. Doors swinging both ways, located between rooms such as kitchen and dining rooms shall be provided with view areas. One view area shall be provided for each door of swinging double doors.

8. No turnstile or similar device to restrict travel to one direction, or to collect fares or admission charge, shall be so placed as to obstruct any required means of egress.

ELEVATORS

1. In each elevator there shall be posted a card or plate indicating the safe carrying capacity. The safe capacity for passenger elevators shall be expressed in terms of the maximum number of passengers and for freight elevators in terms of the number of pounds. The rated capacity shall never be exceeded.

2. Self-service elevators shall have operating instructions and emergency procedures clearly outlined and posted inside the car.

3. Passengers shall guard against tripping when entering or leaving an elevator. No one shall get on or off an elevator while it is in motion.

4. Passengers shall not use freight elevators unless they are authorized for passenger use. Elevators not authorized for passenger use shall carry signs to that effect.

5. Passenger elevators and automatic operation freight elevators shall be provided with an emergency alarm system, operable from within the car which will provide effective means for summoning assistance at all hours in case of emergency.

6. Exposed gears, sprockets, tape or rope sheaves or drums of selectors, floor controllers or signal machines and the ropes, chains, or tapes for driving same, in machine rooms and secondary machinery spaces, shall be guarded to protect against accidental contact.

EXITS

1. Every building or usable portion thereof shall have at least two means of egress.

2. Each exit shall be remote from each other and so arranged and constructed as to minimize any possibility that both may be blocked by any one fire or other emergency condition.

3. Exits shall be so located and arranged that they are readily accessible at all times.

4. Exits from a room may open into adjoining or intervening room or area provided such adjoining room is accessible to the area served and provides direct access to an exit and travel distance does not exceed 75 feet.

5. All exits shall discharge directly to the street, or to a yard, court, or other open space that gives safe access to a public way.

6. No obstruction or storage shall be placed in the exit.

7. At every required exit doorway, and whenever otherwise required to indicate clearly the direction of egress, an exit sign shall be provided.

8. Every required sign designating an exit or way of exit shall be so located and of such size, color, and design as to be readily visible. No decorations, furnishings, or equipment which impair visibility of an exit sign shall be permitted.

9. Every sign shall be illuminated by a reliable light source and maintained on separate circuit or separate source of power.

GUARDRAIL

1. Guardrail shall be provided on all open sides of unenclosed roof openings, open landings, balconies or porches, platforms, runways, ramps, or working levels more than 48 inches above the floor, ground, or other working area. Wherever guardrail protection is required state or federal standards will be applied.

2. A guardrail shall consist of top rail, mid-rail or equivalent protection, and posts, and shall have a vertical height within the range of 42 inches to 45 inches from the upper surface of the top rail to the floor, platform, runway, or ramp level. Such rails shall be so constructed to withstand a force of 200 lbs. applied downward or horizontally at any point.

3. Railings protecting floor openings, platforms, scaffolds, etc. shall be equipped with toe-boards if, beneath the open side, there is pedestrian or machinery traffic; or if there is equipment from which falling material could cause a hazard. A standard toe-board

shall be at least 4 inches in heigth. It may me made of any substantial material, either solid, or open. Openings in the material shall not exceed 1 inch.

PLACES OF ASSEMBLY

1. Every place of assembly shall maintain aisles and/or corridors in accordance with the provisions of this chapter, "Corridors and Aisles."

2. Where smoking is permitted, there shall be provided proper ashtrays, and at other convenient places approved noncombustible ashtrays or match receiver should be provided.

3. Fire extinguisher and/or fire hoses shall be visible and accessible at all times.

4. No person shall permit overcrowding or admittance of any person beyond the approved capacity of any place of public assemblage.

5. No person shall cause or permit any open flame to be used in any place of public assembly except when used in conjunction with approved heating or cooking appliances, or with special approval from the Fire Marshall.

STAIRWAYS

1. Every stairway or ramp serving any building or portion thereof shall conform to the requirements as set forth in NFPA and other state or federal standards.

WORK SPACE ACCESS

1. Every permanent elevated location, where there is machinery, equipment, or material which is customarily operated, adjusted, or otherwise handled shall be provided with a safe platform or maintenance runway. Access shall be by means of either fixed ladders or permanent ramps or stairways.

2. Every equipment room should have an opening large enough for an individual to exit at the opposite side from the door.

WORK SURFACES

FLOORS

1. All working surfaces such as floors and corridor type areas shall be kept in good repair so that they may be kept clean and orderly. Grease, water or other slippery substances shall not be allowed to accumulate. It should be cleaned up at once.

2. Tripping hazards are a major source of falls and therefore floors and other walking surfaces are to be kept as clear and unobstructed as possible.

3. Cords must not cross aisles or work area floor space without approved type ramps or other protection which eliminates the trip hazard.

4. Mats and gratings or other non-slip materials shall be used in wet process areas and other locations where drainage is necessary.

5. Highly polished floors may present slipping hazards. To minimize this danger, wax that is applied on it should be an approved water emulsion wax of the non-slip type and applied in accordance with applicable instructions.

6 Carpeting shall be laid smoothly, and loose or torn floor covering shall be promptly repaired, replaced, or removed. Rugs not securely fastened to the floor shall have a rubberized non-slip backing or shall be laid over pads made of rubber or other slip-resistant material.

7. Permanent roadways, walkways, and material storage areas in outside yards shall be maintained free of dangerous depressions, obstruction and debris.

8. In all interior access ways where vehicles or material handling powered machines are used, the access way will be properly marked with reflective paint or tape.

FLOOR OPENINGS

1. Floor openings and floor holes into which a person can accidentally walk, shall be guarded by either standard railing on all exposed sides or a floor hole cover of standard strength hinged in place. When cover is not in place, it shall be protected by a removable standard railing.

2. Floor opening covers should be made of solid construction, but where there is no exposure to failing materials, grill or slatted covers with opening not over 1 inch in width may be used. Covers should be on non-slip surfaces and set flush. They shall not project more than 1 inch above the floor level.

3. Unused portions of service pits shall be either covered or protected by guardrail. This may be accomplished by moveable posts and chain rails or other guardrail which will provide equivalent protection.

LADDERS

1. Straight ladders, step ladders, library type ladders, safety stools, and other climbing equipment must be made available as necessary and be maintained in a safe condition. Personnel must not be permitted to climb onto cabinets and other furnishings to reach elevated storage items or work with racks or equipment installed above benches.

2. Ladders shall be maintained in good condition at all times. Ladders that are broken, weak or missing rungs shall be removed and destroyed.

3. Ladders shall not be loaded in excess of the safe capacity for which they were constructed. Long ladders shall be braced to prevent undue deflection.

4. Portable ladders shall be erected at a pitch of 75 1/2 degrees for a 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 the top support) of the ladder.

5. Ladders shall extend at least 3 feet above the point of support at eves, gutters, or roof line. Unless suitable hand-holds are provided, the side rails of all ladders shall extend at least 3 feet above the upper landing.

6. Ladders, other than stepladders, shall be secured against displacement by fastening the feet rigidly to the floor, by lashing or fastening the ladder at the top and installing safety shoes.

7. Ladders shall not be painted in such a manner as to hide the grain structure of defects. Ladders may be kept coated with a suitable transparent preservative material.

8. The lashing of ladders together to increase the length of the ladder is prohibited.

9. Portable metal ladders shall not be used in the vicinity of electrical circuits in places where they may come in contact. Portable metal ladders shall be legibly marked with signs reading "CAUTION-Do Not Use Around Electrical Equipment"

10. No one shall be permitted to stand and work on the top rung of a ladder.

11. Ladders shall not be placed in passageways, doorways, driveways or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.

12. Ladders should be stored in such a manner as to provide ease of access and to prevent danger of accident when withdrawing a ladder for use. Wood ladders, when not in use, should be stored at a location where they will not be exposed to the elements, but where there is good ventilation. Ladders stored in a horizontal position should be supported at a sufficient number of points to avoid sagging and permanent set.

13. On stepladders, these rules apply:
    A. Stepladders longer than 20 feet shall not be used.
    B. A uniform step spacing shall be employed which shall be not more than 12 inches.
    C. A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open positions shall be a component of each stepladder.
    D. When in use, a step ladder should have a firm foundation and be secured or held while being used.

14. When ascending or descending, the user should face the ladder.

15. Ladders shall be inspected frequently and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use".

ELECTRICAL SAFETY

GENERAL

1. The following table is helpful in understanding that a very small amount of electrical current is hazardous.

CURRENT IN MILLI-AMPERES	*EFFECT*
2 ma a/c or 10 ma d/c	Threshold of sensation: a strong tingling.
10 ma a/c or 60 ma d/c	Let go current above which one freezes due to muscular contraction.
100 ma a/c or 500 ma d/c	Death due to heart fibrillation and paralysis of breathing.

The current passing through the body is the key factor in any shock accident. Most of the over 1,000 electric shock fatalities which occur in the U.S. every year are due to voltages of less than 440 volts. It is imperative that respect be given all electrical equipment and circuits and that adequate precautions be taken regardless of voltage.

2. Typical body resistances are on the order of 1,000 ohms. Keep your resistance high by keeping hands and feet dry.

3 Shoes must be worn at work (rubber-soled shoes are preferable).

4. The removal of rings and watches is recommended.

5. Persons should never hold an energized electric appliance with wet hands, or when wearing wet shoes.

6. Do not touch electrical appliances when working at a sink.

7. Know the location of all power plugs and off switches on all equipment.

8. Assume all electronic gears are potentially lethal.

9. Report all shocks and defective equipment. A shock means something is wrong! The slightest shock when operating an electrical appliance in one location might, in another situation, result in instant death if part of the body made only slightly better contact with the ground or a grounded metallic object.

10. Use qualified electricians to do repairs.

11. In case of an accident:

    A. Break connections to victim by turning off the power or use a nonconducting object to separate victim and source. Do not touch victim until contact is broken.
    B. Begin artificial respiration as quickly as possible. External cardiac massage may also be helpful.
    C. Obtain emergency assistance quickly by calling 911.
    D. When an electrical fire occurs, use CO_2 or all-purpose dry chemical extinguisher only.

MEANS OF DISCONNECTING

1. All switches, circuit breakers, fuses and other control and protective devices shall be so located or arranged that they may be safely operated.

2. Each disconnecting means 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 unless located and arranged so the purpose is evident. The marking shall be of sufficient durability to withstand the environment involved.

3. Devices intended to break circuit shall have an interrupting capacity sufficient for the voltage employed and for the cube interrupted.

FLEXIBLE CORDS

1. Flexible electrical cords shall be used only for:

   A. Pendants.
   B. Wiring.
   C. Connection of portable lamps or appliances.
   D. Elevator cables.
   E. Wiring of cranes and hoists.
   F. Connection of stationary equipment to facilitate their frequent interchange.
   G. Prevention of the transmission of noise or vibration.
   H. Fixed or stationary appliances where the fastening means and mechanical connections are designed to permit removal for maintenance and repair.
   I. Data processing cables.

2. Flexible cords shall not be used:

   A. As a substitute for the fixed wiring of a structure.
   B. Where run through holes in walls, ceilings, or floors.
   C. Where run through doorways, windows or similar openings.
   D. Where attached to building surfaces.
   E. Where concealed behind building walls, ceilings, or floors

3. Flexible cords shall be used only in continuous lengths without splice. The repair of hard-service, flexible cords, number 12 and larger, shall be permitted if the completed splice retains the insulation, outer sheath properties, flexibility, and usage characteristics of the cord being spliced.

4. Flexible cords shall be so connected to devices and to fittings that tension will not be transmitted to joints or terminal screws. This shall be accomplished by a knot in the cord, winding the tape, by a special fitting designed for that purpose, or by other approved means which will prevent a pull on the cord from being directly transmitted to the joints or terminal screws.

GROUND-FAULT CIRCUIT PROTECTION

1. To protect employees using portable electrical equipment in outdoors, wet, or other hazardous locations; ground-fault circuit interrupters (GFCI) shall be used at all times when these conditions exist.

2. All 120-volt, AC, single phase, 15 and 20 ampere receptacle outlets in outdoor, wet, or other hazardous locations, shall have ground-fault circuit interrupters.

GROUNDING EQUIPMENT

1. Under any of the conditions described in (A) through (E) below, exposed non-current-carrying metal parts of cord and plug-connected equipment likely to become energized, shall be grounded. (Refer to the National Electrical Code for exceptions.)

   A. In hazardous locations (Flammable liquids and gases present.)
   B. Where operated at over 150 volts to ground.
   C. Potentially hazardous portable, hand-held, motor-operated tools and appliances such as drills, wet scrubbers, sanders, floor polishers and saws.
   D. Cord and plug-connected appliances used in damp or wet locations or by persons standing on the ground or metal floors or working inside of metal tanks, or boilers.
   E. Portable tools likely to be used in wet an conductive locations, unless double insulated.

2. Exposed non-current-carrying metal parts of fixed equipment likely to become energized under abnormal conditions shall be grounded when they are: (see National Electric Code for exceptions)

   A. Within 8 feet vertically or 5 feet horizontally of ground or grounded metal objects and subject to contact by persons.
   B. Located in a wet or damp location and not isolated.
   C. In a hazardous location.
   D. Supplied by a metal-clad, metal-sheather, or metal-raceway wiring method.
   E. Operated with any terminal at over 150 volts to ground.

3. Exposed, non-current metal parts of the kinds of equipment described in (A) through (E) below, regardless of voltage, shall be grounded (see National Electric Code for exceptions).

   A. Switchboard frames and structures supporting switching equipment.
   B. Generator and motor frames in an electrically operated organ.
   C. Motor frames.
   D. Enclosures for motor controllers.
   E. Electric equipment for elevators and cranes.

GROUNDING OF LIVE PARTS

1. Live parts of electric equipment operating at 50 volts or more shall be guarded against accidental contact by approved cabinets or other forms of approved enclosures or by:

   A. Location in a room, vault, or similar enclosure that is accessible only to qualified persons.
   B. 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. Location to rooms and other guarded locations containing exposed live parts shall be marked with conspicuous warning signs forbidding unqualified persons to enter.

METHODS OF GROUNDING

1. The grounding connections for metal non-current-carrying equipment shall be made on the supply side of the service disconnection means.

2. The path to ground from circuits, equipment, and conductor enclosures shall:

   A. Be permanent and continuous.
   B. Have ample carrying capacity to conduct safely any currents liable to be imposed on it.
   C. Have impedance sufficiently low to limit the potential above ground and to facilitate the operation of the over current devices in the circuit.

3. Metal non-current-carry fixed equipment where required to be grounded shall be grounded by an equipment grounding conductor contained within the same raceway, cable, or cord or otherwise run with the circuit conductors. The conductor cover shall have a continuous outer finish that is either green, or green with one or more yellow stripes.

4. Non-current-carrying metal parts of cord and plug connected equipment (portable) where required to be grounded, shall be grounded by one of the methods indicated below:

   A. Use of a metal plate on the conductors supplying such equipment if grounding-type attachment plug with one fixed grounding contact is used for grounding the metal enclosure. The attachment plug should be secured to the metal plate and to equipment by connectors that are approved for purpose.
   B. Use of a grounding conductor run with the power supply conductors in a cable assembly or flexible cord properly terminated in grounding-type attachment plug with one fixed grounding contact. The covering shall have a continuous outer finish that is either green or green with one or more yellow stripes.
   C. Use of a separate flexible wire or strap, insulated or bare, protected against physical damage.

OUTDOOR CONDUCTOR CLEARANCES

1. For outside wiring all conductors shall comply with the clearances specified below:

LOCATION	*MINIMUM CLEARANCE LOW VOLTAGE (0-600 VOLTS)*
Above and along thoroughfares	20 ft
Above areas where it is possible to drive vehicles	16 ft
Above areas accessible to pedestrians only	12 ft
Above structures	8 ft
Distance away from windows, doors, scaffolds, or similar locations shall be maintained not less than:	– 3 ft

WORK PROCEDURES

1. No employee shall work in such proximity to any part of an electric power circuit unless the employee is protected against electric shock by de-energizing the circuit and grounding it or by guarding it by effective insulation or other means.

2. Suitable protective equipment or devices shall be provided and used on or near energized equipment for the protection of employees where there is a recognized hazard of electrical shock or burns. In lieu of protective equipment, barricades may be used to provide protection from exposed energized equipment.

3. Equipment or circuits that are de-energized shall be rendered inoperative and have tags attached at all points where such equipment or circuits can be energized.

4. All reasonable means shall be provided to bar unauthorized persons and/or equipment from the immediate vicinity of the work in progress.

WORKING SPACE AROUND ELECTRICAL EQUIPMENT

1. Sufficient access and working space shall be provide and maintained around all electrical equipment to permit ready and safe operation and maintenance of such equipment.

2. The Dimension of the working space in the direction, of access to live parts operating at 600 volts or less which require examination, adjustment, servicing, or maintenance while alive, shall not be less than indicated in the Table. In addition to the dimensions shown in the Table, the work space shall not be less than 30 inches wide in front of the electric

equipment. Distances shall be measured from the live parts if such are exposed or from the enclosure front or opening if such are enclosed. Concrete brick, brick, or tile walls shall be considered as grounded.

3. For inside clearances the following shall govern:

VOLTAGE TO GROUND	*MINIMUM CLEAR DISTANCE (IN FEET)*
0-150	2 1/2 - 3
151-600	2 1/2 - 3 1/2 or 4

* Conditions:

a. Exposed live parts on one side and no live parts on the other side of the working space.

b. Exposed live parts on one side and grounded parts on the other side.

c. Exposed live parts on both sides of the work space.

4. Working space required by this Section shall not be used for storage.

5. At least one entrance of sufficient area shall be provided to give access to the working space around electrical equipment.

6. Adequate illumination shall be provided for all working spaces around electrical equipment. The light outlets shall be so arranged that persons changing lamps or making repairs on the lighting system will not be endangered by live parts or other equipment.

7. The minimum headroom of working spaces about switchboards, panel boards and control centers which require manual operation or where there are live parts exposed at any time shall be 6 1/4 feet.

FIRE PROTECTION

GENERAL

1. All fires, regardless of severity shall be reported to the Loss Control Committee. Information derived from these reports will assist in identifying areas and conditions that are hazardous. Corrective action to eliminate the hazard will be taken immediately.

2. All drapes, curtains, drops and Christmas trees, located in corridors, stairways, lobbies, passageways and balconies shall be made of non-flammable material or be treated and maintained in a flame-retardant.

3. Exit lights, fire alarms, wet standpipe hose cabinets, and fire extinguishers shall not be concealed by the decorative material.

FIRE ALARMS

1. All fire alarms shall be provided for emergency or signaling purposed at all county facilities.

2. Each fire alarm shall be securely mounted so that the bottom of the station is not less than 4 1/2 feet and not more than 6 feet above the floor.

3. Fire alarms shall be distributed throughout buildings so that they are unobstructed, readily accessible and in the normal path of an exit.

4. The audible signal shall be of sufficient duration and intensity of 85d BA minimum and be capable of being heard by persons with average hearing ability at all locations inside the affected building.

5. All alarm systems shall be under the supervision of qualified persons. These persons shall test, inspect and have general charge of all alterations and additions.

FIRE EXTINGUISHERS

1. Portable fire extinguishers are designed for small fires and are necessary even if the property is equipped with automatic sprinklers, standpipe and hose, or other fixed equipment.

2. Portable extinguishers shall be kept fully charged, operable, and in their designated places at all times.

3. Extinguishers shall be located where they will be accessible and immediately available in the event of fire. They shall be located along normal paths of travel including exits from an area.

4. 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.

5. Extinguishers shall be installed on the hangers or in the brackets supplied, mounted in cabinets, or set on shelves.

6. Extinguishers mounted in cabinets or wall recesses or set on shelves shall face outward for easy access.

7. Fire extinguishers shall be provided for the protection of the building structure, the occupancy hazards contained therein, and for the protection of life.

8. Minimal sizes and numbers of fire extinguishers for flammable liquids (Class B) and energized electrical equipment (class C) shall be provided on the basis of NFPA requirements.

9. Extinguishers shall be inspected monthly to ensure they 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.

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

11. Glass fire extinguishers shall be used only on wood or trash fires.

VENTING EXPLOSIONS

1. Vents are required in building areas containing operations where flammable gases, vapors, or mists, may be present in explosive concentrations in the air.

2. Highly hazardous operations should be separated into individual units by pressure resisting walls, and each unit so formed should be vented to the outside of the building.

3. When venting a room, building, or piece of equipment, consideration must be given to the location into which and explosion is to be vented.

STORAGE AND HANDLING OF FLAMMABLE LIQUIDS AND MATERIALS

GENERAL

1. Limit the quantities at any one location to those actually necessary, but not to exceed the limits specified below.

2. Prohibit smoking and eliminate other possible ignition sources wherever flammable liquids are stored or used.

3. Avoid sparks from static charges generated by pouring; connect dispensing and receiving containers (if metal) by a suitable electrical conductor.

4. Provide fire extinguishers, as appropriate, at all locations of storage and use.

5. Prevent accumulation of vapors by careful handing and by providing adequate ventilation.

6. Use only approved containers, e.g. safety cans (*) or metal drums, for all transportation and handling.

7. Label every container used for flammable liquids with the name of the material and the words "Danger-Flammable-Keep away from heat, sparks, and open flames-Keep closed when not in use".

CLASSIFICATION AND HANDLING RESTRICTIONS			
Classification Code	***IA***	***Maximum Container Size***	***IA***
Flash Points	less than 73° F	Glass Containers	1 pint
Boiling Points	less than 100° F	Metal Cans	5 gallons
Flammability hazard	extremely high	Safety Cans (*)	5 gallons
		Metal Cans	60 gallons
Classification Code	***IB***	***Maximum Container Size***	***IB***
Flash Points	less than 73° F	Glass Containers	1 quart
Boiling Points	greater than 100° F	Metal Cans	5 gallons
Flammability hazard	very high	Safety Cans (*)	5 gallons
		Metal Cans	60 gallons
Classification Code	***IC***	***Maximum Container Size***	***IC***
Flash Points	73° - 100° F	Glass Containers	1 gallon
Boiling Points	—	Metal Cans	5 gallons
Flammability hazard	high	Safety Cans (*)	5 gallons
		Metal Cans	60 gallons
		Maximum Quantities at Isolated Special-Purpose Building	***II***
Classification Code	***II***	IA	1,100 gallons
Flash Points	100° - 140° F	IB	2,200 gallons
Boiling Points	—	IC	4,400 gallons
Flammability hazard	moderate	II	8,800 gallons

Maximum quantities at any location

1. Special storage rooms (***) with automatic extinguishers:
   All classifications-5 gal/sq. ft. but not to exceed 750 gallons.

2. Special storage rooms (***) without automatic extinguishers:
   All classifications-2 gal/sq. ft but not to exceed 300 gallons.

3. Offices and other areas of use not in safety cans:
   All classifications-10 gallons

4. Offices and other areas of use in approved safety cans (*):
   All classifications-25 gallons.

5. Offices and other areas of use in approved safety cabinets (**):
   All classifications-60 gallons

* Safety cans must be equipped with automatic closure for evaporation control and over pressure reliefs; they must be equipped with flame arrestor and teflon gaskets at all openings.

** Safety cabinets must be of double-wall steel construction with three-point locking door, and a two-inch sill at the bottom of the door. Label "Flammable Keep Fire Away"

*** Inside storage rooms must have approved self-closing fire doors, liquid-tight seal where walls join the floor, a four-inch sill or equivalent sum with drain to a safe location; a gravity or mechanical ventilation system shall provide at least six complete changes of air per hour.

VAPORS, FLAMMABLE

1. Ventilation shall be sufficient so that under normal operating conditions concentrations of flammable vapors or gases in buildings, rooms or similarly enclosed places shall not exceed 20 percent of the lower explosive limit for such vapors

2. No source of ignition, shall be permitted in any location, indoors or outdoors, where the concentration of the flammable gasses or vapors exceeds or may reasonably be expected to exceed 20 percent of the lower explosive limit in the working atmosphere.

3. Smoking is forbidden in any location where flammable vapor is present.

COMPRESSED GAS

1. Cylinders shall be stored in well protected, well ventilated, dry locations, at least 20 feet from highly combustible materials such as oil or grease.

2. Cylinders may be stored in the open, but in such cases, protection is needed against the weather, from the dampness of the ground, and containers should be shaded against the direct rays of the sun. Bulk storage is to be in approved rooms or outside enclosures. Bulk storage cylinders should be chained and security measures taken to prevent tampering and loss.

3. Do not store empty cylinders with the full ones, and do not place cylinders where they may become part of an electrical circuit.

4. All gas cylinders in service or storage, empty or full, shall be securely held upright in substantial racks or secured to other rigid structures so that they will not fall or be knocked over. During storage, cylinder caps should be in place.

5. All cylinders are to be considered full unless properly identified as empty. Empty cylinders should be returned to the supplier and not be permitted to accumulate. To prevent contamination and even explosive mixtures in cylinders, always leave at least 25 pslg minimum pressure in all "empty" cylinders. Do not leave an empty cylinder attached to a pressurized system.

6. Gas cylinders in portable service shall be conveyed by suitable trucks to which they are securely fastened. During movement, cylinder caps should be in place.

7. Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or the trade name of the gas. Such marking shall be by means of labeling, and shall not be readily removable. The marking shall be located on the shoulder of the cylinder.

8. Cylinders should not be accepted unless the cylinder contents are clearly labeled. Do not accept cylinders which are damaged or do not have a valve protection cap.

9. Oxygen cylinders shall never be stored near highly combustible materials, near any substance likely to accelerate or cause a fire, or within 20 feet of other fuel gas cylinders, unless protected by a fire-wall rated at least a 1/2 hour. Systems used for other gases must never be used for oxygen.

10 No attempt shall ever be made to transfer gases from one cylinder to another, to refill cylinders, or to mix gases in a cylinder

11. Never force a gas cylinder valve. If the valve cannot be opened by the wheel or small wrench provided, the cylinder should be returned.

12. Use Compressed Gas Association (CGA) approved fittings and components.

13. Each department head shall determine that compressed gas cylinders under his control are in a safe condition to the extent that this can be determined by visual and other inspection. Cylinders with distinct visual bulge shall be removed from service until the nature of the defect is determined.

14. Compressed gas cylinders shall have pressure relief devices installed and maintained in accordance with requirements of the Compressed Gas Association. Types of safety relief devices are as follows:

    -Frangible disc
    -Fusible plug
    -Safety relief valve

15. Piping used with compressed gases or air systems shall be steel, wrought iron brass or copper pipe, or seamless copper, brass or stainless steel tubing. Piping systems shall be protected by pressure relief devices set to function at not more than the design

pressure of the systems and discharging upward to a safe location. All locations where the system can be accessed shall be equipped with a pressure regulator.

MACHINERY AND MACHINE GUARDING

GENERAL

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

2. Guards shall be affixed to the machine where possible and secured elsewhere if for any reason attachments to the machine is not possible. The guard shall be such that it does not offer an accident hazard in itself.

3. The point of operation of machines whose operation exposes an employee to injury, shall be guarded.

4. The guarding device shall be in conformity with appropriate standards, or be so designed as to prevent the operator from having any part of his body in the danger zone during the operating cycle.

5. Distinct from guarding at the point of operation but complementary to it is the matter of guarding moving parts of equipment used in the mechanical transmission of power. These mechanisms include shafting, belts, pulleys, gears,etc.

6. There shall be conspicuously displayed at all electrically driven machines that are controlled by fully automatic starters, permanent signs giving warning that the machines are automatically controlled and may start at any time, causing injuries.

ABRASIVE WHEELS

1. Abrasive wheels shall be used only on machines provided with safety guards.

2. Such safety guards shall be hoods of such design and construction as to effectively protect the employee from flying fragments of a bursting wheel insofar as the operation will permit.

3. The hood guard shall cover the spindle end, nut, and flange projections. The safety guard shall be mounted so as to maintain proper alignment with the wheel, and the strength of the fastenings shall exceed the strength of the guard.

4. Grinding machines, work rests shall be used to support the work. They shall be of rigid construction and kept adjusted closely to the wheel with a maximum opening of one-eighth inch to prevent the work from being hammered between the wheel and the rest.

5. An adjustable tongue-guard shall be installed at the top end of the hood guard and clearance to the wheel periphery shall not exceed one-fourth inch.

6. Immediately before mounting, all wheels shall be closely inspected and sounded by the user (ring test) to make sure they have not been damaged. The spindle speed shall be checked before mounting of the wheel to be certain that it does not exceed the maximum operating speed marked on the wheel.

GRINDING SAFETY PROCEDURES

1. All abrasive-wheel machinery shall be equipped with protection hoods, which shall be of such design and construction as to effectively protect the user from flying fragments of a bursting wheel insofar as the operation will permit.

2. Wear a face shield, safety goggles, or cover goggles when grinding.

3. Grinding wheels shall be equipped with tool rests which are set not more than one-eighth inch from the wheel.

4. The side of an emery wheel shall not be used for grinding unless it is a special type wheel for that purpose.

5. Stand to one side when starting up a machine and do not exert great pressure on the wheel until it has had time to warm up.

6. Report to your supervisor immediately any broken, cracked, or otherwise defective wheel.

7. Mounting a new wheel should be done only by an experienced person.

8. Never use a wheel that has been dropped or has received a heavy blow, even though there is no apparent damage. The wheel may be weakened to a point where it may fly apart.

9. An abrasive wheel shall not be operated at a speed in excess of that recommended by the manufacturer of the wheel.

CLEANING, REPAIRING, AND SERVICING

1. Machinery or equipment capable of movement shall be stopped and the power source locked off or disengaged to prevent inadvertent movement during cleaning, servicing, or adjusting operations.

2. Every power driven machine equipped with lockable controls or readily adaptable to lockable controls shall be locked out or positively sealed in the "off" position during repair work. Machines not equipped with lockable controls shall be considered in compliance with this order when positive means are taken, such as de-energizing or disconnection the equipment from its source of power, or other action which will prevent the machine from inadvertent movement.

3. A sufficient number of accident prevention signs or tags and padlocks, or other similarly effective means shall be provided and used. Signs, tags, or padlocks, shall have means by which they can be readily secured to controls.

4. If the machinery or equipment must be capable of movement during this period in order to perform the specific tasks, the employees shall minimize, the hazard of movement by the use of extension tools (e.g. extended swabs, brushes, scrapers) or other methods or means. Employees shall be made familiar with the safe use and maintenance of such tools by detailed training

WASHING WITH SOLVENTS

1. Flammable liquids should not be used to clean floors, work benches, or other large surface areas.

2. The substances listed below should not be used to clean machines, equipment, or furniture.

-Carbon disulfide
-Chloroform
-Ether
-Pentachlorophenol
-Tetrachloroethane
-Tetrachloroethylene
-Trichloroethylene

MACHINES, MISCELLANEOUS

1. When the periphery of the blades of a fan are less than seven (7) feet above the ground, floor, or working level, the blades shall be guarded. The guard shall have openings no larger than one-half (1/2) inch.

2. Each washing machine and dryer shall be equipped with an interlocking device that will prevent the inside cylinder from moving when the outer door on the case or shell is open, and will also prevent the door from being opened while the inside cylinder is in motion.

3. The in-running sides of power operated rollers or cylinders on printing type presses shall be provided with a guard so arranged that the material can be fed to the rollers without permitting the operator's fingers to be caught between the rollers or cylinder.

4. Hand powered paper cutters shall have a safety bar to prevent fingers holding paper from coming into contact with the blade. The blade shall also be adjusted so as to not fall when released.

5. Horizontal tilting type mixers shall be provided with a cover over the top of the mixer. An interlocking device shall be provided, so that power cannot be applied to the agitators unless the mixer is in operating position, with cover in place. The mixer when tilted shall be operated with the cover open only if equipped with an electrical push button when operating the mixer with the cover open; the button shall be located so that the operator cannot reach into the mixer while pressing the button.

METAL WORKING EQUIPMENT

1 Drill presses should have the spindle enclosed as completely as possible. The chuck shall be tightened securely with the key provided. The key shall not be left in the chuck. The work shall be firmly clamped and a center punch used to score the material before the drilling operation is started. If the work should slip from the clamp, no attempt shall be made to stop it with the hands.

2. Circular metal saw should be equipped with a hood guard which automatically adjusts to the thickness of the stock being cut.

3. Band saws shall have upper and lower wheels completely enclosed with sheet metal or heavy small-mesh screen. The portion of the saw blade between the upper saw guide and the upper saw blade wheel shall be completely enclosed with a sliding fixture attached to the guide.

WOODWORKING EQUIPMENT

1. All portions of the saw blade shall be enclosed or guarded on band saws except the working portion of the blade between the bottom of the guide rolls and the table. The outside periphery of the enclosure shall be solid. The sides of the band wheels shall be either enclosed by solid material or wire mesh or perforated metal.

RULES FOR SHOP SAFETY

1. Personnel shall not be permitted to operate any machinery until they have been instructed as to the hazards and the proper operation of such equipment and the use of protective devices.

2. All floors shall be kept in good repair and shall be free from protruding nails, splinters, holes, unevenness, and loose boards. Effective means shall be provided to prevent slipping.

3. Aisles shall be of sufficient width to permit the uncrowded and safe passing of personnel, trucks, or material. Width of aisles where motorized vehicles are used shall be 1.5 times the width of the load. Lines shall be painted on the floor or some similar method shall be employed to mark aisles.

4. During all working periods each working area, operation, or process shall be adequately lighted and harmful glare minimized.

5. Tools, machines, devices, or other equipment that are hazardous because of defects or other conditions shall not be used until suitably repaired.

6. Areas around machines should be kept clear of obstructions and in non-slippery condition. All spilled oil or grease shall be cleaned up immediately.

7. Do not clean chips from the surface of machines with compressed air or with hands; a brush or hood should be used. Where general cleaning of machines and equipment by compressed air is considered necessary, the outlet pressure shall be reduced to not more than 40 p.s.i. by means of a regulator or pressure reducing control nozzle designed for this purpose.

8. Cleaning of one's clothes with compressed air is prohibited.

9. When using portable electrical equipment around machine tools, keep all electrical cords clear of moving parts.

10. Do not place hand tools on machines. Keep them in their assigned location.

11. Goggles or face shields shall be worn when grinding or when there is danger of flying particles.

12. All guards on machines are to be properly adjusted and in working order before starting the machinery.

13. All gear and belt guards must be in place before machine is operated.

14. Machine guards must be kept in position at all times unless removal is authorized for repairs or cleaning.

15. Be sure all is clear before starting any machine.

16. A jig or fixture shall be used when cutting or forming irregular pieces or oblique angles.

17. All projecting keys, set-screws, and other projections in revolving parts shall be made flush or guarded by a substantial metal cover as practicable.

18. All power saws shall be guarded underneath and behind the table to prevent possible personal contact.

19. A mechanical or electrical power control shall be provided on each machine which will make it possible for the operator to cut off the power from the machine being operated without leaving his position at the point of operation.

20. Each activity whose operations create dust, shavings, chips, or slivers, shall be equipped with an exhaust system either continuous or automatic in action, of sufficient strength and capacity to remove such refuse from the points of operation and immediate vicinities of machine and work places.

21. Do not repair, oil, or clean machinery while it is in motion. Lubrication while machinery is in motion shall be done by remote control lubricating system.

22. Do not use electrical equipment or machines with frayed or otherwise deteriorated insulation.

23. Electrically driven portable machinery as well as fixed electrical equipment shall have the frame grounded.

24. Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

25. Foot protection (safety shoes) should be considered where there is reasonable possibility of dropping heavy objects. Footwear which is defective or inappropriate to the extent that ordinary use creates possibility of foot injury (open toed sandals or tennis shoes) shall not be worn in shop areas.

26. Do not attempt to remove foreign objects from the eye or body; obtain proper medical treatment.

27. In case of injury, no matter how slight, report it to your supervisor.

BAND SAW SAFETY PROCEDURES

1. Adjustable guards should be kept as close over the point of operation as the work permits.

2. When a band breaks, shut off the machine and stand clear until the machine has stopped.

3. Never stop a machine by pushing material against the band.

4. Cracked saw blades should not be used. A "click" as the blade passes through the work denotes a cracked blade.

CIRCULAR SAW SAFETY PROCEDURES

1. Stand to one side. Do not stand directly in line with work being fed through saw.

2. A rip saw shall not be used for cross cutting nor shall a crosscut saw be used for ripping.

3. See that saw blade is in good condition before using. This means sharp, unbroken, free from cracks, and the proper saw for the job.

4. Never reach over the saw to obtain material from the other side.

5. Never oil the saw or change the gauge while the machine is running.

6. When shutting off power, never stop the saw quickly by thrusting a piece of wood against it. Be sure the saw has stopped before leaving it.

7. A pusher stick shall be used whenever the size or shape or the piece requires the hands to be near the saw blade.

8. The appropriate guards must be kept in place at all times.

9. Speed of Saw: The peripheral speed of circular saws shall not exceed 12,000 feet per minute unless the saw has been manufactured for a higher speed and is so marked.

DRILL PRESS SAFETY PROCEDURES

1. When drilling, tapping, or reaming material, see that it is securely fastened by blocks or clamps so that it cannot spin. In no case, should the operator rely on his hand to secure the material from turning.

2. When tightening drill or chuck of drill press, be sure to remove release key before starting the machine.

3. Run the drill only at the correct speed. Forcing or feeding too fast may cause broken bits or drills and result in serious injury.

4. An operator should never attempt to loosen the chuck of a tapered shank drill unless the power is turned off.

5. When chucks are being removed from the spindle, the spindle should be lowered close to the table so the chuck will not fall.

6. Never use the hands to remove cuttings from the table.

HAND AND PORTABLE POWERED TOOLS

HAND TOOLS

1. All hand tools shall be maintained in a safe condition free of worn or defective parts.

2. All tools shall be restricted to the use for which they are intended, and should be used only by those employees who are trained and qualified to use such tools.

3. Tools having mushroomed heads, split or defective handles, worn parts, or other defects that impair their strength or render them unsafe for use shall be removed from service and shall not be reissued until the necessary repairs have been made.

4. Goggles shall be worn by persons using hand tools when there is a possibility of flying chips or other materials.

5. Listed below are some conditional requirements for specific hand tools:

   A. The head of a hammer shall be wedged securely and squarely on the handle and neither the head or the handle shall be chipped or broken.
   B. Care shall be taken to select a screwdriver of the proper size to fit the screw. No screwdriver with a split or splintered handle shall be used. The point shall be kept in proper shape with a file or grinding wheel, and the screwdriver shall not be used as a substitute punch, nail puller, etc.
   C. Only wrenches in good condition shall be used; A bent wrench, if straightened, has been weakened and shall not be used. Always pull toward yourself, never push, since it is easier to brace against a backward pull than a sudden lunge forward should the tool slip or break.

D. Pliers shall be kept free from grease and oil and the teeth or cutting edges shall be kept clean and sharp. The fulcrum pin, rivet, or bolt shall be snug but not tight.

E. Only saws that are sharp and properly set shall be used. A crosscut saw shall be used for cutting across the grain; a rip saw for cutting with the grain.

F. Hack saws should be adjusted in the frame snug and tight enough to prevent buckling. The proper number of teeth per inch should be selected for the work. Pressure should be on the down stroke only.

G. Wrecking bars and crowbars shall be kept sharpened and free from burrs.

H. Before shovels are used, they shall be inspected by the worker to be sure that it has a strong, smooth handle, the grip is free from splinters and that the blade is smooth and sharp.

POWER TOOLS

1. Portable power tools shall be kept cleaned, oiled, and repaired. They shall be carefully inspected before use. The switches must operate properly and the cords be clean and free from defects. The plug shall be clean and sound.

2. All portable power tools capable or receiving guards and/or designed to accommodate guards shall be equipped with such guards so as to prevent the operator from having any part of his body in the danger zone during operating

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

4. All hand-held powered tools of a hazardous nature such as circular saws having a blade diameter greater than 2 inches, chain saws, percussion tools, drills, tapper, fastener driver, grinders with wheels greater than 2 inches in diameter, disc sanders, belt sander, reciprocating saw, saber saws, scroll saws, and jig saws with blade shanks greater than one-fourth inch, and other similarly operating powered tools shall be equipped with a constant pressure switch or control that will shut off the power when the pressure is released. Other than circular saws, chain saws, and percussion tools, these tools may have a lock on control provided that turn off can be accomplished by a single motion of the same finger or fingers that turn it on. All other less hazardous hand-held powered tools, such as routers, may be equipped with a positive on-off" control.

5. Portable circular saws having a blade diameter over 2 inches, shall be equipped with guards or hoods which will automatically adjust themselves to the work when the saw is in use, so that none of the teeth are exposed to contact above the work; and when withdrawn from the work, the guard shall completely cover the saw to at least the depth of the teeth.

6. All pneumatic-powered portable tools shall be equipped with an automatic air shut-off valve that stops the tool when the operator's hand is removed. Safety clips or retainers shall be used on all pneumatic tools.

7. Abrasive wheels shall be used only on machines provided with safety guards. The guard shall cover the spindle end, nut, and flange projections.

8. All explosive-activated fastening tools' muzzle ends shall have a protective shield or guard designed to confine any flying fragments or particles. The tool shall be so designed that it cannot be fired unless it is equipped with a protective shield or guard. A department shall not permit an employee to use a power-actuated tool until he has received training as prescribed by the manufacturer.

POWER MOWERS

GENERAL

1. Power mowers shall bear a label certifying that they have been constructed in accordance with the provisions of ANSI B71.1-1972.

2. Power mowers shall be maintained in safe operating condition in accordance with the Owner's Manual.

3. An indicator of blade rotation shall be provided on mowers that operate quietly.

4. The controls used for stopping, starting, speed control, and the enclosure shall extend 1/8 inch minimum below the lowest cutting point of the blade.

5. The discharge opening(s) shall be so placed or guarded that grass or debris will not discharge directly into the operator zone.

6. The word "CAUTION" or "DANGER" shall be placed on the mower at or near each discharge opening.

7. The blade(s) shall stop rotating within seven seconds after either de-clutching or shutting off drive power.

OPERATING REQUIREMENTS

1. Area to be cut should be examined for loose objects such as tin cans, pieces of wire, or other objects. A serious injury can result from objects thrown by rotating blades.

2. The engine will be cut off when filling with gas. No smoking when filling.

3. Avoid slopes that are too steep for machines, whether a push mower or riding mower.

4. Suitable foot, eye, and head protection should be worn when operating power mowers.

WALK-BEHIND MOWERS

1. The mower handle shall be fastened to the mower so as to prevent unintentional uncoupling while in operation.

2. A mower with a rope starter shall have a labeled, designated area for stabilizing the mower when starting the engine.

3. A shut-off device shall be provided to stop operation of the engine. This device shall require manual and intentional activation in order to restart the engine.

RIDING ROTARY MOWERS

1. A disconnect device shall be provided between the engine (motor) or power source and the blade(s).

2. A means shall be provided to prevent the starting of the engine when the wheel drive control is in the engaged position. Such means shall not be required on units equipped with "deadman" controls.

3. A slip-resistant surface or other means shall be provided to minimize the possibility of an operator's foot slipping off the foot support or platform.

4. Towed rotary mower attachments shall have no front opening in the blade enclosure.

EXCAVATING AND TRENCHING

EXCAVATION/TRENCHES

1. *BEFORE OPENING ANY EXCAVATION, EFFORTS SHALL BE MADE INCLUDING UTILITY COMPANY CONTACT TO DETERMINE IF THERE ARE UNDERGROUND UTILITIES INSTALLATIONS IN THE AREA, AND THEY SHALL BE LOCATED AND SUPPORTED DURING THE EXCAVATION OPERATIONS.*

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CALL 1-800-DIG-TEST BEFORE DIGGING

2. The walls and faces of trenches 5 feet or more deep and all excavations, in which employees are exposed to danger from moving ground or cave-in shall be guarded by a shoring system, sloping of the ground, or some other equivalent means.

3. In excavations which employees may be required to enter, excavated or other material shall be effectively shored and retained at least 2 feet or more from the edge of the excavation.

4. Daily inspections of excavations shall be made by a competent person. If evidence of possible cave-ins or slides is apparent, all work in the excavation shall cease until necessary precautions have been taken to safeguard the employees.

5. Trenches 4 feet deep or more shall have an adequate means of exit such as ladders or steps, located so as to require no more than 25 feet of lateral travel.

SIGNS, LABELS, AND COLOR CODES

ACCIDENT PREVENTION SIGNS

1. Accident prevention signs are intended to indicate specific hazards of a nature that failure to designate them may lead to accidental injury of property damage. All Signs shall conform to the requirements of this policy and each sign shall include the following:

   A. An approved heading that indicates the relative hazard.
   B. A statement of the type of hazard or what to do, or not to do, in the area. Signs shall be visible at all times when work is being performed, and shall be removed or covered promptly when the hazards no longer exist.

2. Danger signs are to be used only where an immediate hazard exists. They indicate that special precautions must be taken. Danger signs are identified by a red upper panel with a black border and the word "DANGER" in white letters. Examples are as follows:

   DANGER-"HIGH VOLTAGE", DANGER-"NO SMOKING", DANGER-"KEEP OUT".

3. Caution signs are to be used only to warn against potential hazards or to caution against unsafe practices. They indicate possible hazards against which proper precautions should be taken. Caution signs are identified by a black panel with the word. "CAUTION' in yellow letters.

4. Safety instruction signs are to be used where there is a need for general instructions and suggestions relative to safety measures. They are identified by a green panel with a word such as "THINK" or "BE CAREFUL", etc. in white letters. Example are as follows:

   THINK-"REPORT UNSAFE CONDITIONS", BE CAREFUL- "WALK DON'T RUN".

5. Directional signs are for providing specific direction-type information. The standard color is red on white and the directional symbol should be dominate. Examples are as follows:

   "THIS WAY OUT" - with arrow, "FIRE EXTINGUISHER" - with arrow

6. On radiation warning signs, the standard color of the background shall be yellow, with the symbol and panel magenta. Any letters used against the yellow background shall be magenta or black.

7 The biological hazard warning sign shall be used to signify the presence of a biohazard. The primary symbol color should be fluorescent orange.

8 Blue shall be the standard color for information signs. It may be used as the background color for the complete sign or as a panel at the top of such types of "Notice" signs, which have a white background.

9. The slow-moving vehicle emblem consists of a fluorescent yellow-orange triangle with a dark red reflective border. The emblem is intended as a unique identification for, and it shall be used only on, vehicles which by design move slowly (25 m.p.h. or less) on the public roads.

ACCIDENT PREVENTION TAGS

1. Tags are a temporary means of warning all concerned of a hazardous condition, defective equipment, radiation hazards, etc. The tags are not to be considered as a complete warning method, but should be used until a positive means can be employed to eliminate the hazard; for example, a "DO NOT START" tag on power equipment shall be used for a few moments or a very short time until the switch in the system can be locked out; a "DEFECTIVE EQUIPMENT" tag shall be replaced on a damaged ladder and immediate arrangements made for the ladder to be taken out of service and sent to the repair shop.

2. "DANGER" tags shall be affixed to equipment which is being held out of service for repair or for equipment which poses an imminent or immediate hazard to the user. Before repair work is performed on equipment, a danger tag shall be attached and the equipment shall be locked out of service.

3. "CAUTION' tags must be affixed to equipment which poses a potential hazard to the use. These tags are also used to warn against an unsafe practice.

4. "NOTICE" tags are to be utilized for conveying safety information or suggestions regarding equipment or conditions.

5. Other tags such as radiation or biological hazard shall use the same symbols and colors as required on signs.

6. During routine inspections of building areas inspectors may affix red danger tags to equipment which is observed in a state of disrepair or is deemed imminently or potentially hazardous. A time limit may be established for correction. Correction of deficiencies is the responsibility of the department head.

COLOR CODES FOR MARKING PHYSICAL HAZARDS

1. Red shall be the basic color for the identification of:

   A. Fire protection equipment and apparatus.
   B. Safety cans or other portable containers of flammable liquids.
   C. Emergency stop buttons or electrical switches used for emergency stopping of machinery.
   D. Danger signs.

2. Orange shall be used as a basic color for designating dangerous parts of machines or energized equipment and to emphasize such hazards when gear or other guards around moving equipment are open or removed, exposing unguarded hazards.

3. Yellow shall be the basic color for designating caution and for marking physical hazards such as: striking against, tripping, and "caught in between". Solid yellow, yellow and black stripes, should be used interchangeably, using the combination which will attract the most attention in the particular environment.

4. Green shall be used as the basic color for designating "safety" and the location of first aid equipment.

5. Blue shall be limited to warning against the starting, the use of, or the movement of equipment under repair or being worked upon.

6. Purple shall be the basic color for designating radiation hazards.

7. Black, white, or a combination of these two, shall be the basic colors for the designation of traffic and housekeeping markings.

STORAGE AND HOUSEKEEPING

HOUSEKEEPING

Safety starts with housekeeping. A clean, neat, and orderly work area is an important reflection of safe work habits and attitudes. Therefore, the following housekeeping rules will apply:

1. All places of employment shall be kept clean and orderly and in a sanitary condition. The floor of each area shall be maintained in a clean and, so far as possible, a dry condition.

2. Any material spilled on the floor which could cause an accident must be cleaned up immediately.

3. During the course of work, all debris shall be kept reasonably cleared from work areas, and all waste shall be disposed of at intervals determined by the rate of the accumulation and the capacity of the container. Always use container supplied for this purpose.

GENERAL STORAGE RULES

1. Material, wherever stored, shall not create a hazard. It shall be limited in height and shall be piled, stacked, or racked in a manner designed to prevent it from tipping, falling, collapsing, rolling, or spreading. Racks, bins, plans, blocks, sheets shall be used where necessary to make the poles stable.

2. Heavy or awkward items should always be stored near the bottom of shelves or cabinets as falling heavy items are a hazard to personnel.

3. Do not allow equipment or storage to encroach within 36 inches (preferable 42") of all electrical panels. These panels contain the emergency switches for equipment and sometimes must reached quickly.

4. Secure storage shelving, cabinets, and other items which may accidently tip over or are subject to movement.

INDOOR STORAGE

1. Storage shall not obstruct or adversely affect means of exit.

2. The storage of materials which may generate heat or emit smoke in corridors and halls is not consistent with good fire safety practices. For this reason, it should be county policy that there be no lockers, cabinets, refrigerators, storage materials, or extensions of office facilities or functions in any corridor space of county building.

3. All materials shall be stored, handled, and piled with due regard to their fire characteristics.

4. Non-compatible materials, which may create a fire hazard, shall be segregated by a barrier having a fire resistance of at least 1 hour. Arrangement should permit convenient access for fire fighting.

5. Clearance shall be maintained around lights and heating units to prevent ignition of combustible materials.

6. Stacked materials shall have a minimum clearance of 18 inches between the top of the stack and the sprinkler system piping and deflectors.

7. In buildings without installed sprinkler systems, the material stack height shall not exceed fifteen (15) feet.

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

9. The maximum weight of material stored on building floors or load carrying platforms, except those built directly on the ground, shall not exceed their safe carrying capacity. All elevated storage areas will be marked with load capacity.

10. In warehouse-type storage areas, the following rules apply:

    A. Aisles and passageways for one-way fork lift traffic shall be not less than 1 1/2 times the width of the widest vehicle or load. for two-way fork lift traffic, the minimum width of the widest vehicles or loads plus 3 feet.
    B. Lanes for aisles and passageways shall be painted on the floor, or a similar method employed to mark such areas.
    C. Black, white, or a combination of these two shall be the basic colors for the designation of traffic and housekeeping markings.

LOOSE MATERIAL STORAGE

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

2. No employees shall be permitted to work on or over loose material, until they have been instructed in the hazards involved and the precautions that must be taken to prevent employees being caught in cave-in material.

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

OUTDOOR STORAGE

1. Combustible materials shall be piled with due regard to the stability of piles and in no case higher than 20 feet.

2. Driveways between and around combustible storage piles shall be at least 15 feet wide and maintained free from accumulation of rubbish, equipment, or other materials.

3. The entire storage site shall be kept free from accumulation of unnecessary combustible materials. Weeds and grass shall be kept down and a regular procedure provided for the periodic cleanup of the entire area.

4. Storage shall be in orderly and regular piles. No combustible material shall be stored outdoors within 10 feet of a building or structure.

5. Portable fire extinguishing equipment, suitable for the fire hazard involved, shall be provided at convenient, conspicuously accessible locations in the yard area.

VEHICLE OPERATIONS

GENERAL

1. Persons who operate vehicles on behalf of the county should extend every courtesy to both traffic and pedestrians.

2. Only those employees specifically authorized and who possess a valid driver's license shall operate vehicles on county business.

3. The following rules apply to the operation of vehicles on county business.

   A. Driver shall be familiar with and obey all state motor vehicle laws that apply to them.
   B. A driver shall not permit unauthorized person to drive, operate or ride in or on a county vehicle.
   C. Seat belts will be used.
   D. Employees shall not permit anyone to ride on the running boards, fenders, or any part of any motorized equipment except on the seats or inside the body walls. Riding in the backs of trucks are prohibited.
   E. Employees shall not ride on loose materials or equipment carried on trucks; nor shall they ride on trailers or towed equipment, except when performing a job function.
   F. Employees shall not jump on or off vehicles in motion.

G. Drivers shall keep a sharp lookout for pedestrians and for cyclists and be prepared for an immediate stop.

4. The following rules apply to vehicle condition:

A. Windshields and windows shall be kept clear of anything that may obstruct the vision of the driver.
B. Brakes shall be tested by the driver at the start of each day. The driver shall report all defects and they shall be adjusted or repaired before the vehicle is put in operation.
C. Lights and other signaling devices shall be inspected daily. If found defective, they shall be repaired before vehicle is placed in operation. No vehicle shall be operated at night unless equipped with properly working headlights, taillights, and other necessary safety devices as required by law.
D. Fuel, oil, water, and hydraulic systems will be checked twice a day and filled if necessary.
E. All vehicles shall bear a Texas Department of Public Safety annual inspection sticker.
F. Vehicles that don't meet Texas Department of Public Safety standards are not driven.

5. The following rules apply to hauling materials and equipment:

A. Materials and equipment shall be loaded so they will not cause a hazard by shifting. Heavy equipment and materials shall be securely fastened.
B. Red flags during the day and red lights at night shall be attached to equipment or material that extends more than four (4) feet beyond the back of the vehicle. Red flags or approved clearance lights shall be attached to loads extending more than two (2) feet beyond the front of the vehicle.
C. Tools, materials, or equipment shall not be permitted to extend beyond the permanent fixtures provided on the sides of the truck.
D. Trailers or equipment, while being towed, shall be securely coupled to the truck and joined by auxiliary chains or cable. Trailer lights shall be hooked up before used on a public road.
E. Trucks shall not be operated with tailgates hanging or dangling.
F. Vehicles will not be operated unless back-up signals are in operating order.

SAFETY RULES FOR GARAGE AREAS

1. The following rules apply to the use and repair of vehicle batteries:

A. Battery charging installations shall be located in areas designated for that purpose.
B. When charging batteries, the vent caps shall be kept in place to avoid electrolyte spray.
C. Facilities for quick drenching of the eyes and body shall be provided within 25 feet of the battery areas for emergency use.

manufacturer should be followed, and only recommended lubricants should be used.

4. The following rules apply to tire inflation:

   A. Tire inflating shall be accomplished by means of a clip-on chuck with a minimum 24-inch length hose to an in-line regulator (factory preset at 40 psi maximum) or a restraining device may be used as an equivalent.
   B. Tire inflation control valves shall automatically shut off the air flow when the valve is released by the operator or be of the preset regulator type.
   C. A tire restraining device, such as a cage, rack, or other effective method shall be used while inflating tires mounted on split rims or having retaining rings.

      EXCEPTION: While the wheel assembly is mounted on a vehicle, tires may be inflated without a restraining device, provided that remote control inflation equipment is used and all persons stay out of danger area.

SPRAY PAINTING

GENERAL RULES

1.Spraying areas shall be provided with ventilation adequate to dilute flammable vapors to less than 20 feet of their lower explosive limit.

2.Employees performing paint spray operations shall use provided respirators while spray painting.

3.Only respirators that have been approved for the paint to be applied will be used.

4.Only employees who have been trained and respirator-fit tested will perform paint spray operations.

WELDING, CUTTING AND BRAZING

GENERAL RULES

1. Welding and cutting are done on an ever-increasing variety of metals and metals and metal coatings. Four primary hazards that are associated with welding operations are ultraviolet and infrared light, oxides of nitrogen, ozone, and metal fumes.

2. Cutting or welding shall be permitted only in areas that are, or have been, fire safe. Where objects to be welded or cut are not readily movable fire hazards in the vicinity shall be taken to a safe place.

3. Where objects to be welded or cut are not movable and where fire hazards cannot be removed, then guards shall be used to confine the heat, sparks and slag, and to protect the immovable fire hazards and nearby personnel.

4. Suitable fire extinguishing equipment shall be immediately available in the work area and shall be maintained in a state of readiness for instant use. It may be necessary to assign additional personnel to guard against fire while the actual welding is being performed, and for a sufficient period of time after the completion of the work to ensure that no possibility of fire exists.

5. No welding, cutting, or other 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 which when subjected to heat, might produce flammable or toxic vapors.

6. 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.

7. All welders should wear flameproof gauntlet gloves. Flameproof aprons may be desirable as protection against radiated 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.

8. Local exhaust systems providing a minimum air velocity of 100 lineal feet per minute in the welding zone shall be used where feasible. Mechanical dilution ventilation sufficient to prevent exposures to concentration of airborne contaminants from exceeding those specified in Chapter 3 may be used instead.

9. Respiratory protective equipment shall be used when ventilation is not feasible.

10. Local exhaust ventilation shall be used when potentially hazardous materials are employed as base metals, fluxes, coatings. plating, or filler metals. These include, but are not limited to, the following materials:

    A. Beryllium
    B. Cadmium
    C. Chromium
    D. Fluorides
    E. Lead
    F. Mercury
    G. Zinc
    H. Inert-gas metal arc welding or oxygen cutting of stainless steel.

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

12. When operations are suspended all welding equipment shall be shut off.

13. The frames of all arc welding and cutting machines shall be grounded either through third wire in the cable containing the circuit conductor or through a separate wire which is grounded at the sources of the current.

14. All arc welding and cutting cables shall be of the completely insulated, flexible type, capable of handling the maximum current requirements of the work in progress.

15. Mixtures of combustible gases and air are very explosive. No device or attachment facilitating or permitting mixture of air oxygen with combustible gases prior to consumption, except at the burner or in a standard torch or blow pipe, shall be allowed.

16. Acetylene and liquefied fuel-gas cylinders shall be placed with valve-end up. If a leak develops at the fusible plug or elsewhere on a cylinder the cylinder shall be removed well away from any source of ignition, the cylinder valve slightly open, and the fuel gas allowed to escape slowly. A warning shall be placed near this cylinder not to approach it with a lighted cigarette or other sources of ignition. Such a cylinder shall be plainly tagged as defective and in need of repair before re-filling.

17. The primary hazard associated with silver soldering is the inhalation of cadmium fumes. Silver solder generally contains 18% to 20% cadmium which is emitted as a fume when silver solder is heated. Silver soldering operations always should be conducted where local exhaust ventilation is available to remove the cadmium fumes, and also fluoride fumes, which may be emitted from the flux. Sometimes, if it is impractical or nearly impossible to provide exhaust ventilation, the worker should wear an approved respirator with a high efficiency particulate filter.

THE LOSS CONTROL COMMITTEE

YOUR COUNTY LOSS CONTROL COMMITTEE

Loss Control Coordinator - Your county loss control coordinator is designated by the commissioners' court. County coordinators are generally chosen for their leadership skills.

Loss Control Committee Members - Committee members are also chosen by the commissioners' court and generally include at least one person from the commissioners' court and every county department. It is imperative that all departments be actively involved to maintain a good county-wide program.

TAC Training Team - TAC's Loss Control staff is your training team. The TAC team is available to answer questions, help establish your county's loss control program and provide loss control training and technical assistance.

RESPONSIBILITIES FOR COUNTY OFFICIALS AND EMPLOYEES

Overview - For a county loss control program to be effective, it is important that all employees actively participate.

Elected Officials - County officials established your committee out of concern for county employees and has given you authority by passing a Safety Policy Statement. The commissioners' court and other elected officials are aware that a commitment of some time away from normal duties is necessary to establish and maintain an effective loss control program.

Managers & Supervisors - Encourage employees to participate; develop specific techniques and procedures for specific operations; eliminate unsafe conditions and employees; investigate accidents within the department safety rules.

Foreman - Explain safety rules and encourage compliance; give detailed instructions as to job performance; explain possible job hazards and safety precautions in assigning workers to jobs; see that injured workers receive first aid or medical attention.

Employees - Provide input and knowledge; understand your duties; recognize hazards and take precautions; inform supervisors of hazards and recommend how to eliminate them; wear personal protective clothing; immediately report all injuries or accidents to supervisors; always advise supervisor when assigned a task you have not been trained to do.

REGULATORY AGENCIES

FEDERAL REGULATORY AGENCIES

Department of Transportation (DOT) - governs transportation. The regulations affect your operations with regard to driver's license requirements and operation.

Environmental Protection Agency (EPA) - governs waste and emissions. Regulations affect county operations if they operated a solid waste disposal site, a hazardous materials waste facility or a water or waste water plant.

Department of Labor (DOL) - governs employees safety through the Occupational Safety & Health Administration (OSHA). This agency requires employers to provide a safe working environment and places responsibility on the employer for making sure an employee is qualified or trained to perform the function they are assigned in a safe manner. OSHA also writes new standards, investigates serious incidents and assesses penalties for violations of standards.

FEDERAL AVIATION ADMINISTRATION (FAA) - If your county operates an airport, it may fall under the regulations of the FAA.

STATE REGULATORY AGENCIES

Texas Water Commission (TWC) - governs water quality and water contamination issues. Works closely with EPA.

Texas Railroad Commission (TRC) - governs oil and gas production and related services such as pipelines. Regulates some entities with above ground storage tanks and some types of transportation.

Texas Department of Health (TDH) - governs environmental and public health issues. Most directly affects counties as relates to public services and enforcing hazardous communications laws and hazardous chemical reporting . The TDH also regulates solid waste and medical waste disposal.

Texas Air Quality Control Board (TAQCB) - Establishes standards for air quality. Works closely with EPA.

Texas Workers' Compensation Commission (TWCC) - governs employee safety issues through their new Division of Safety and Health. TWCC is responsible for the administration of the Texas Workers' Compensation Act (SB1) as dictated by the Second Called Session of the 71st Legislative Session.

OVERVIEW OF THE TEXAS WORKERS' COMPENSATION ACT (SB1)

This law modified and expanded previous legislation on workers' compensation rules. The major aim of the law is to reduce workers' compensation costs and claims through a well developed, implemented, and managed safety and health program. This goal underlies the belief that a reduction in the number of injuries and causes of occupational disease should significantly reduce costs and increase worker productivity.

There is a 1-800 Employee Hot-Line for employees to phone in anonymous complaints about unsafe working conditions. These calls are taken seriously and usually result in prompt county inspections by an approved field safety representative.