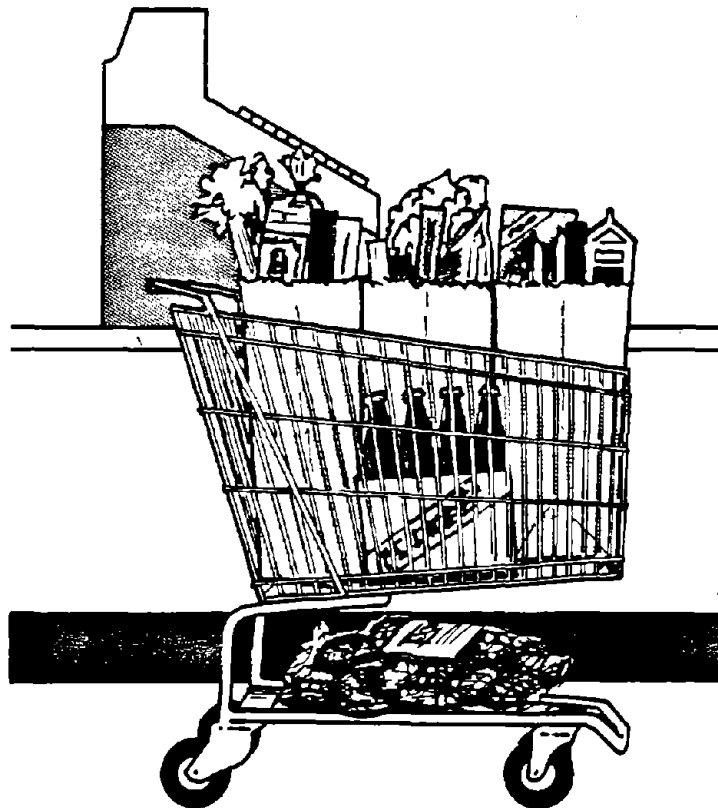


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HEALTH AND SAFETY GUIDE FOR GROCERY STORES



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

Center for Disease Control

National Institute for Occupational Safety and Health

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**U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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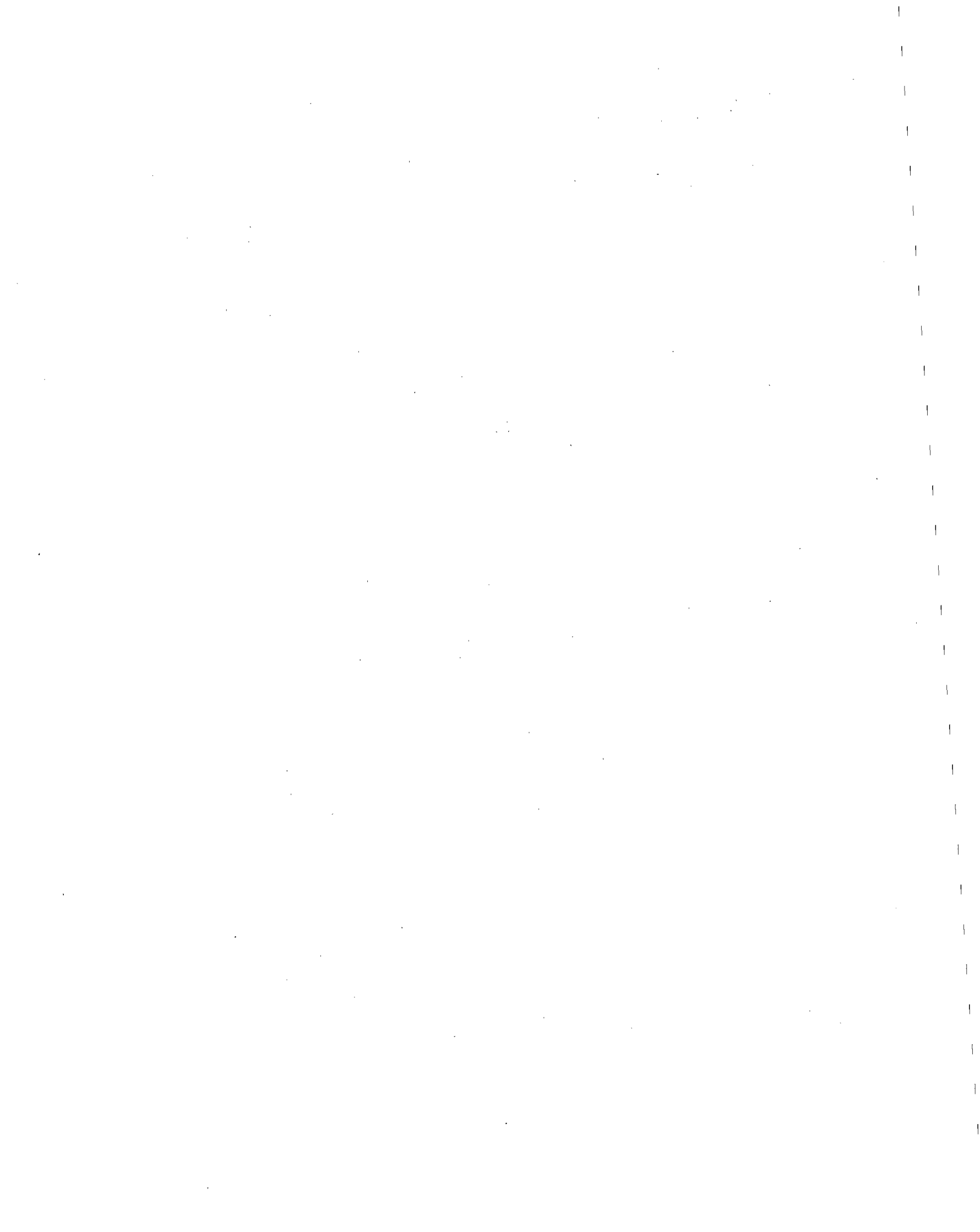
This booklet was prepared by a Task Force in the Division of Technical Services that gathered information from State and Federal agencies, trade associations, insurance companies, etc., and through in-plant visits by NIOSH personnel. Those contributing to the development of the "Health and Safety Guide for Grocery Stores" were: Gerald J. Karches, Director of the Task Force; Melvin T. Eddleston; James B. Walters; Bobby J. Gunter; Raymond Hervin and John Leng.

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INTRODUCTION

INTRODUCTION

The Williams-Steiger "Occupational Safety and Health Act of 1970" was passed into law "to assure safe and healthful working conditions for working men and women. . ." This Act established the National Institute for Occupational Safety and Health (NIOSH) under the Department of Health, Education and Welfare (DHEW) and the Occupational Safety and Health Administration (OSHA) under the Department of Labor (DOL). The Act provides for research, information, education and training in the field of occupational safety and health and authorizes enforcement of the standards. As part of these activities, surveys have been made by NIOSH to determine the most common health and safety problems. Guidelines and regulations pertaining to these problems are included in this Health and Safety Guide, which is being distributed throughout the industry.

While the aim of this Guide is to assist in providing a safe and healthful workplace by describing safe practices and helping to correct some of the more frequently encountered violations of the safety and health standards, it is not intended to provide total information in all areas of noncompliance. Additional information can be found in **general industry standards Title 29 Code of Federal Regulations Part 1910**.

Words such as "must", "required", "necessary", appearing in the text, denote direct applications from the Act. Procedures denoted by "should", "ought to", etc., constitute more indirect applications as well as generally-accepted, safe practices.

In some states, the federal government has delegated enforcement authority for occupational safety and health to the state government. Although, state standards sometimes differ from the federal standards, they must be at least as effective as federal regulations.

A listing of NIOSH and OSHA Regional Offices throughout the United States where additional information and materials can be obtained, is presented on the last few pages of the Guide. Consultation resulting from requests for assistance will not precipitate a compliance visit by OSHA.

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JOB HEALTH AND SAFETY GUIDELINES

GENERAL DUTY CLAUSE

Hazardous conditions or practices not covered in the OSHA standards are covered under the general duty clause of the Act which states: "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees". The purpose of a job safety and health program is to protect the employee by the prevention and control of injuries and health hazards which are involved in the elements of production and the operation of any establishment. The elements are manpower, machinery, tools, material, equipment and time.

Unsafe and unhealthful working conditions can be discovered and corrected by examining the elements of production and implementing a safety and health program.



Strains and back injuries can be minimized with employee training in safe lifting techniques. (See chart in back of this booklet.)

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JOB HEALTH AND SAFETY GUIDELINES (Cont.)

Management leadership is necessary for the complete acceptance of the safety program.

The department head, foreman or supervisor who deals most directly with the employees, must bear the responsibility for implementing the safety and health program. With this responsibility, he must have appropriate authority, assistance, and support. A safety organization should be set up to carry out the firm's commitment to a safety and health program.

The safety and health program should include talking with the employees about preventive measures, hazards, injury and illness records or occurrences, safety promotion and motivation, followed by:

- Inspections for hazards.
- Encouragement of suggestions.
- Provisions of the latest information on safe working methods, protective equipment and clothing.
- Promotion of safety and first aid training.
- Investigation of accidents, injuries and illnesses.

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JOB HEALTH AND SAFETY GUIDELINES (Cont.)

Safety in a retail grocery depends on the recognition, control or elimination of physical hazards and training employees to work safely.

All businesses and industries have safety problems. However, the retail grocery has an additional problem: The public has free access to a great portion of the operation. Consequently, greater care must be taken than usual to maintain safety. No matter how well designed and safety-engineered your store may be, it is never foolproof. In like manner, the best trained personnel cannot operate safely in a poorly engineered facility. Consequently, the two factors are interdependent for safe operation.

Failure to recognize hazardous conditions or neglecting to eliminate them can result in loss of life or serious injuries to personnel and costly damage to facilities.

The checklist in the back of this booklet should be helpful when making a check of hazards in your store.



NIOSH

JOB HEALTH AND SAFETY GUIDELINES (Cont.)

TYPICAL HAZARDS

1. Meat Cutting, Processing and Packaging

These operations are some of the most hazardous. These procedures utilize equipment and machinery that has a great potential for causing serious accidents. Some of the common unsafe conditions or acts are:

- a. Failure to adjust guard on band meat saw to proper height for a particular cut of meat.
- b. Carelessness with hand knives.
- c. Not replacing knives in proper holders.

All machines and saws must be adequately fitted with guarding devices. Any attempt to by-pass these guards is prohibited. Employees using this equipment should be thoroughly trained in its safe operation.

In addition the fumes and smoke generated by the hot wire cutting of plastic packaging films associated with the wrapping of meat, produce, and dairy products also present a potential hazard to health. This potential hazard can be significantly reduced by proper maintenance or modification of film dispensing machines. The tension on the film supply roll should be sufficient to retract the film from the hot wire after each cut. Cutting wires should be kept clean, taut and regulated to a temperature just sufficient to afford satisfactory film cutting. In packaging operations, when plastic film is cut thermally, the cutting should be done in well-ventilated surroundings. Employees displaying intolerance to fumes from plastic film cut in this manner should be moved to jobs away from the packaging operation.

2. Stock Handling

The "backbone" of the grocery business seems to consist of constantly lifting and carrying—unloading on the receiving dock, stacking in the storage area, moving goods to the sales area, and stocking shelves. There is nothing that will contribute more to the safety, health and well-being of your employees than understanding and practicing proper lifting and carrying techniques.

NIOSH

JOB HEALTH AND SAFETY GUIDELINES (Cont.)

The most frequently reported causes of injuries from poor lifting techniques are:

- a. Over-exerting oneself.
- b. Failing to use materials handling equipment.
- c. Not using the proper muscles or having the proper weight distribution.
- d. Stretching and being in awkward position while lifting.

This booklet has a fold-out chart showing the correct way to lift. You may wish to remove it from the book and post it in a place where your employees will see it.

The most prevalent sharp object used throughout the store that causes most injuries is the cutting blade used to open cartons. Most of these injuries could be avoided by having proper respect for the danger of the blade and paying attention to the job at hand. Most injuries reported from these blades were an aftermath to the actual cutting operation.

- a. Cuts from careless discarding of blades.

(It is recommended that you have a container reserved for blade disposal.)

- b. Employees and patrons injured while attempting to pick up discarded or unattended blades.

Occasionally bottles are broken when a person attempts to place them in a box or container. On other occasions, bottles explode when being handled. For this reason, it is recommended that safety glasses be worn when handling boxes of carbonated soft drinks, beer, or bubbling wines.

3. Walking Areas

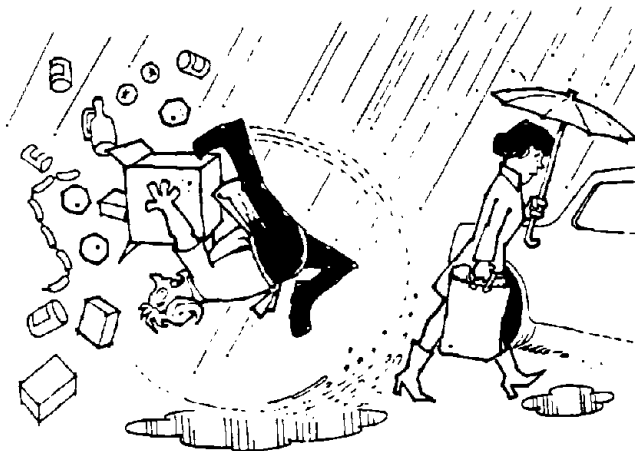
Slips and falls take a terrible toll of injuries and deaths in all industries and the grocery business gets its share of these.

The most frequently reported causes are:

- a. Inappropriate footwear.
- b. Hurrying.
- c. Spills and litter on floors.
- d. Boxes, carts and other objects left in the walking area.

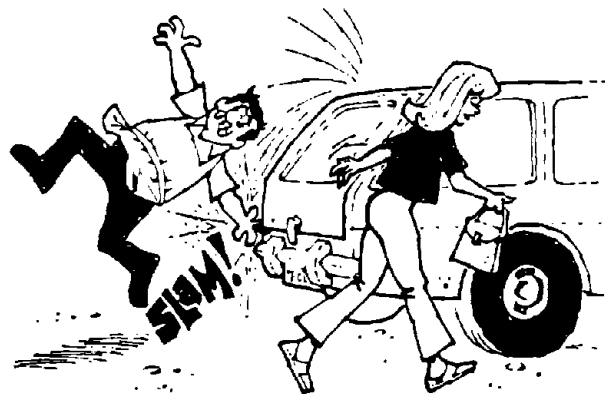
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JOB HEALTH AND SAFETY GUIDELINES. (Cont.)



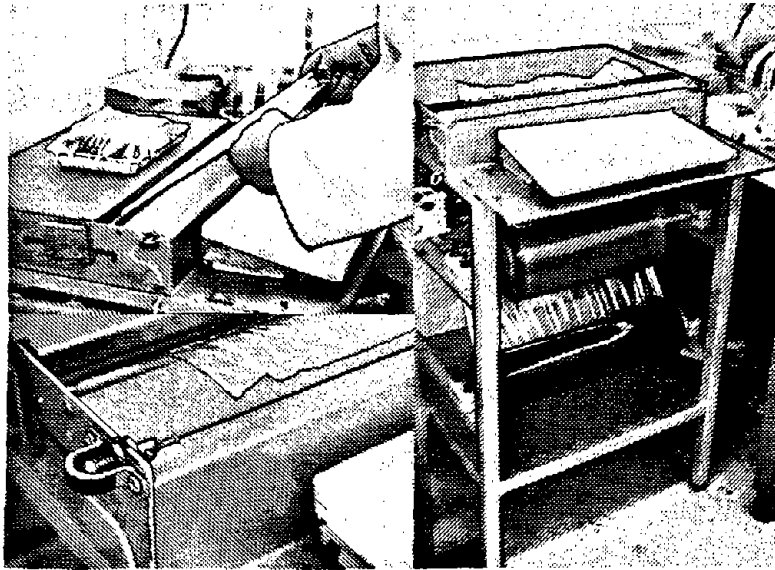
4. Parking Areas

Employees also face many hazardous conditions outside the store building. When carrying groceries or collecting carts the employee runs the risk of being hit by cars, slipping on ice or wet pavement, straining or rupturing from lifting and loading heavy items in customer's cars, and receiving hand and head injuries from trunk lids and car doors.



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JOB HEALTH AND SAFETY GUIDELINES (Cont.)



5. Miscellaneous

The dangers of cutting injuries, of hands caught in ingoing nip points of machinery, and lifting injuries are common. However, other supposedly less hazardous areas contribute considerably to the accident statistics. For instance, hot flying grease from a doughnut fryer can cause burns and eye injuries, or improperly grounded electrical equipment, such as floor scrubbers, meat saws, or meat grinders can cause shock injuries.

Another source of injury is damage to the hands while pushing carts through narrow aisles.

In the final analysis unsafe conditions and unsafe acts are the causes of injuries.

DEVELOPMENT OF A SAFE WORK ENVIRONMENT

The first step toward development of safe work environment would be the identification of existing hazards throughout the work place. To make the job easier you may wish to use the checklist located in the back of this booklet. (This

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JOB HEALTH AND SAFETY GUIDELINES (Cont.)

checklist is not meant to be complete, but it will get you off to a good start in the preparation of your own specific checklist.) The goal is to have all hazards systematically identified and recorded so that you can study them one-by-one to eliminate or reduce them.

When developing solutions to existing hazards we suggest that you consult the pages of this booklet for standards of safe practices that pertain to your operation.

REDUCING HAZARDS

Employee Training

The safe operation of a grocery depends largely upon good management and employees who are properly informed and aware of potential hazards.

Training needs will vary according to the complexity of the operation. At the very least, all personnel should be thoroughly indoctrinated regarding possible hazards.

A good start would be to:

1. Impress upon the worker the need for constant awareness—even during automatically controlled operations.
2. Be sure all employees (both old and new) know how to use necessary personal protective equipment such as shoes, hats or finger guards, etc.
3. Develop and maintain check points at hazardous locations. Observe these routinely during each shift.
4. See to it that employees have available a printed list of standard procedures and emergency procedures.
5. Post signs showing emergency shutoffs.
6. Instruct employees in the use of portable fire extinguishers. (Refer to fold-out chart in this booklet and post in a conspicuous place.)
7. Set up a first aid training program for your employees.
8. Be sure that employees who are authorized to use motorized equipment are thoroughly instructed in its operation and potential hazard.
9. Develop a "good housekeeping" awareness to reduce accidents and to develop in your employees a greater sense of pride in their surroundings.
10. Organize a safety committee.

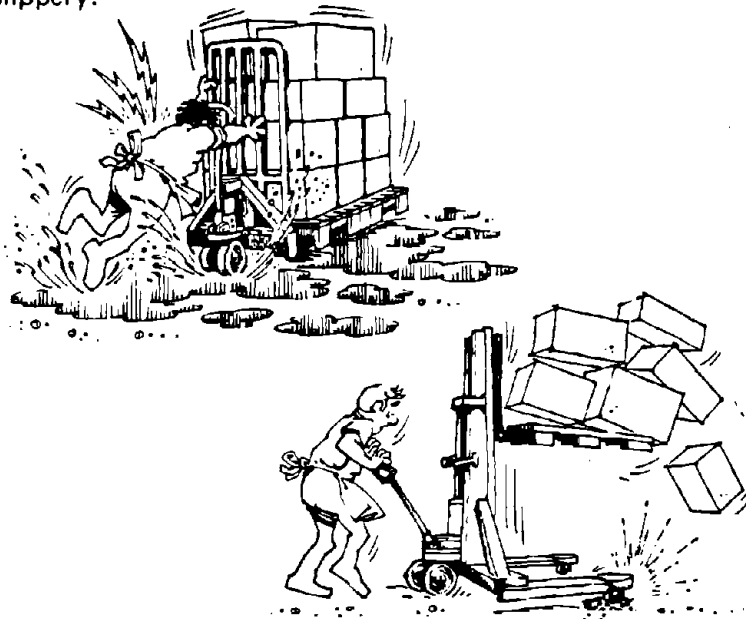
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JOB HEALTH AND SAFETY GUIDELINES (Cont.)

MATERIAL HANDLING HAZARDS

Your employees should be made aware of some basic safety precautions when using materials handling equipment.

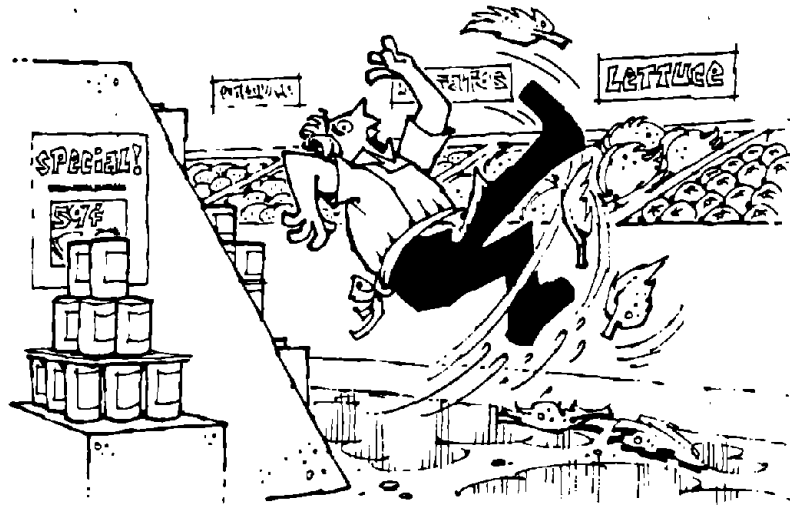
1. Never speed.
2. Avoid quick starts and stops.
3. Be sure there is plenty of clearance for the load.
4. Get help with heavy loads. Starting movements with heavy loads can cause back strain, especially if the floors are slippery.



5. Avoid holes and depressions in the floor.
6. When using a pallet jack, center the forks under the pallet. Wheels should never touch the pallet boards.
7. When using a straddle stacker, be sure the load is secure when lowering.
8. Never move an unstable load.
9. Lower loads slowly.
10. Never raise or lower load while materials handling equipment is traveling.
11. Pallets with faulty deck boards or broken stringers should never be lifted more than 6 feet above the floor.
12. Keep feet clear of wheels.

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FREQUENTLY VIOLATED REGULATIONS WALKING AND WORKING SURFACES



GENERAL REQUIREMENTS

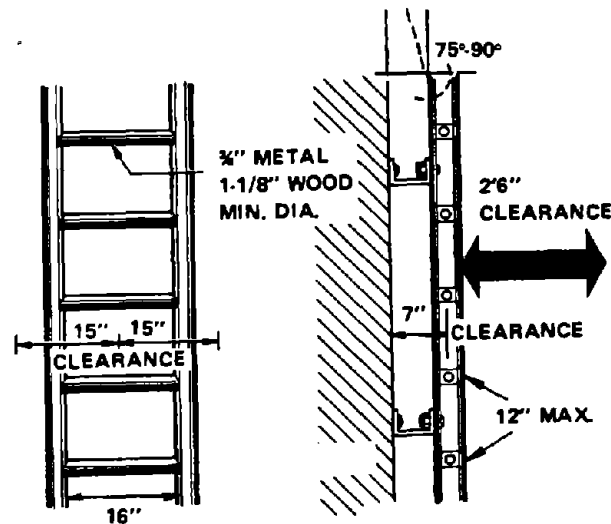
1. All passageways, storerooms and maintenance shops must be maintained clean, dry and orderly and in a sanitary condition. Spills must be promptly cleaned up.
2. Areas which are constantly wet, should have non-slip surfaces where personnel normally walk or work.
3. Every floor, working place and passageway must be maintained free from protruding nails, splinters, holes, loose boards, and so far as possible, in a dry condition.
4. Where mechanical handling equipment such as lift trucks are used, sufficient safe clearances must be provided for aisles at loading docks, through doorways, and wherever turns or passage must be made. No obstructions that could create a hazard are permitted in the aisles.
5. All permanent aisles must be easily recognizable. Usually aisles are identified by painting or taping lines on the floor.
6. The floor-load capacity is the maximum weight which can be safely supported by the floor, expressed in pounds per square foot. When this information is not available and when floor-load capacity is in doubt, it is suggested that a competent engineer be consulted. These floor-load capacities must be posted in a readily visible location.

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FREQUENTLY VIOLATED REGULATIONS WALKING AND WORKING SURFACES (Cont.)

Fixed Ladders Must:

1. Be designed to withstand a single concentrated load of at least 200 pounds.
2. Have rungs with a minimum diameter of $\frac{3}{4}$ " for metal ladders, or $1\frac{1}{8}$ " for wood ladders.



3. Not have rungs spaced more than 12 inches apart and must be at least 16 inches wide.
4. Be painted (if metal) or otherwise treated to resist corrosion when location demands.
5. Have 2'6" clearance on the climbing side of the ladder (except caged ladders).
6. Have at least 7 inches clearance in back of the ladder to provide for adequate toe space.
7. Be equipped with cages if they are longer than twenty feet.
8. Have landing platforms if they are more than 30 feet long. A platform every 30 feet for caged ladders and every 20 feet for unprotected ladders is required.
9. Have a preferred angle of 75°-90° for safe descent.
10. Have side rails extend 3½' above landings.

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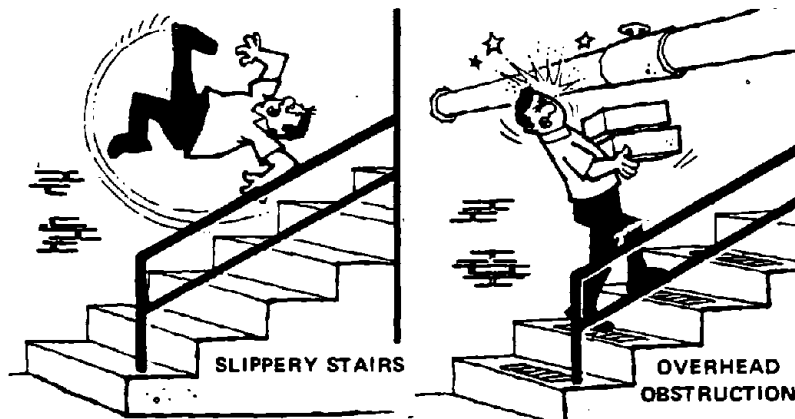
FREQUENTLY VIOLATED REGULATIONS WALKING AND WORKING SURFACES (Cont.)

Portable Ladders:

1. Must be maintained in good condition at all times.
2. Should be kept coated with a suitable protective material. Wood ladders can be painted if carefully inspected prior to painting, providing the ladder is not for resale.
3. Must be inspected frequently; those which have developed defects must be tagged, "DANGEROUS-DO NOT USE" and removed from service for repair or destruction.
4. If wooden, should be stored where they will not be exposed to the elements, and where there is good ventilation.
5. Metal ladders should not be used near energized electrical equipment.
6. Must be so placed that the side rails have a secure footing. They may not be placed on boxes, barrels, or other unstable bases to obtain additional height.

Fixed Industrial Stairs:

1. Rise height and tread width must be uniform throughout any flight of stairs.
2. All treads must be reasonably slip resistant.
3. Vertical clearance above any stair tread to an overhead obstruction must be at least seven feet.



4. The minimum permissible width is 22 inches.
5. The angle to the horizontal made by the stairs must be between 30° and 50°.
6. All stairs should be adequately lighted.

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FREQUENTLY VIOLATED REGULATIONS

WALKING AND WORKING SURFACES (Cont.)

7. If the tread is less than nine inches wide, the risers should be open.

8. If the flight of stairs has four or more risers, railings or handrails must be provided:

a. if the stairway is less than 44 inches wide and open on both sides, a stair railing on each side is required.

b. if the stairway is less than 44 inches wide and open on one side, a stair railing on the open side is required.

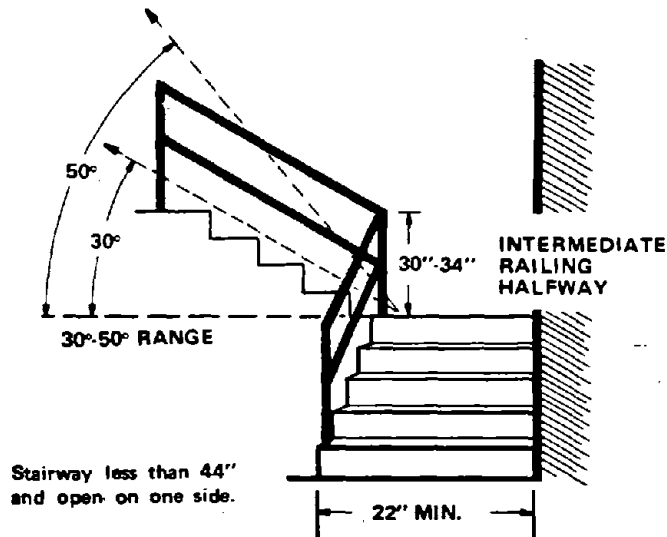
c. if both sides are enclosed on a stairway less than 44 inches wide, at least one handrail is required, preferably on the right side descending.

d. if the stairway is more than 44 inches wide but less than 88 inches wide, a stair railing on each open side and a handrail on each enclosed side are required.

e. if the stairway is 88 or more inches wide, a handrail on each enclosed side, a stair railing on each open side, and an intermediate stair railing located midway are required.

9. The vertical height of the railing must be between 30 to 34 inches.

10. The railing must be smooth surfaced and of construction similar to the standard railing described later in this section.



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FREQUENTLY VIOLATED REGULATIONS WALKING AND WORKING SURFACES (Cont.)

The Standard Railing and Toeboard:

A standard railing consists of a top rail, intermediate rail, and posts. The distance from the upper surface of the top rail to the floor, platform runway or ramp must be 42 inches. The intermediate rail must be approximately halfway between the top rail and the floor.

For wood railings, the rails and posts must be of at least 2" x 4" stock with posts spaced not more than six feet.

For pipe railing, rails and posts must be at least 1½" outside diameter pipe with posts spaced not more than eight feet.

For structural steel railings, posts and rails must be of 2" x 2" x 3/8" angles or other metal shapes of equivalent strength with posts spaced not more than 8 feet apart.

A standard railing must be anchored and framed so that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the top rail.

A standard railing can be of any configuration and construction that meets the above basic requirements.

The standard toeboard must be approximately four inches in height from the floor to its top edge, with no more than a quarter inch gap between the toeboard and the floor. It may be constructed of any substantial material either solid or perforated, as long as the openings are smaller than one inch.

Where a Standard Railing is Required:

1. Every open-sided floor or platform four feet or more above adjacent floor or ground level, must be railed on all open sides except where there is entrance to a ramp, stairway, or fixed ladder.

2. Every stairway floor opening must be guarded on all exposed sides except the entrance to the stairway.

3. Every ladderway floor opening must be guarded by a standard railing and toeboard on all sides, with passage through the railing so constructed as to prevent a person from walking directly into the opening.

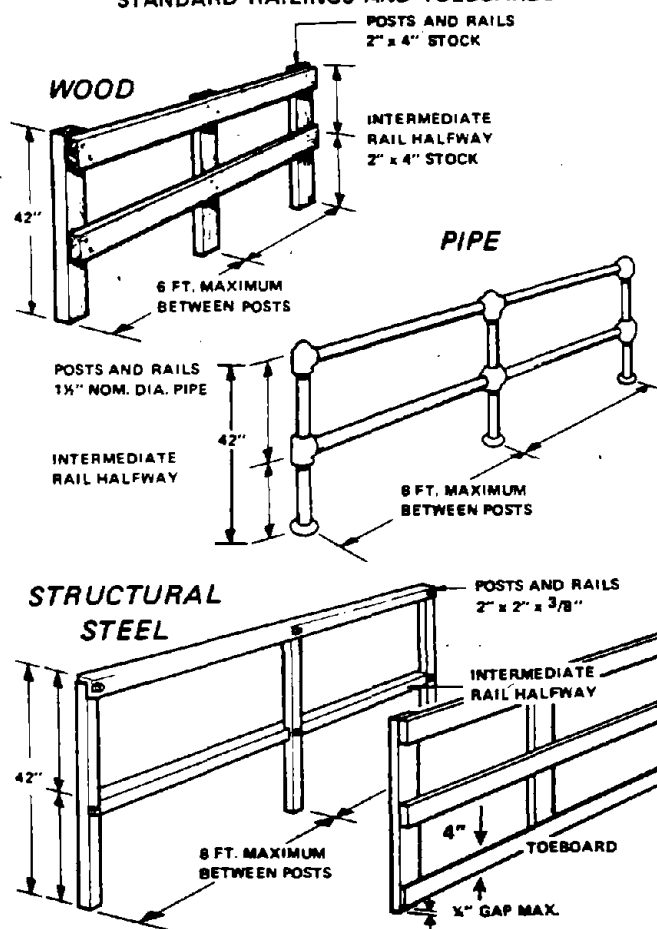
4. Every runway or catwalk must have railings on all open sides 4 feet or more above ground or floor level.

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FREQUENTLY VIOLATED REGULATIONS WALKING AND WORKING SURFACES (Cont.)

As a general condition: A standard toeboard and railing are required wherever people walk beneath the open sides of a platform (or under structures similar to the aforementioned ones), or things could fall from such a structure (for example, into machinery below).

STANDARD RAILINGS AND TOEBOARDS



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FREQUENTLY VIOLATED REGULATIONS EXITS AND EXIT MARKINGS

EXITS AND EXIT MARKINGS REQUIREMENTS

1. Every exit must have the word "EXIT" in plain legible letters not less than 6 inches high with the strokes of the letters not less than $\frac{3}{4}$ inches wide.

2. Doors, passageways, or stairways which are neither exits nor ways to an exit, but may be mistaken for an exit, must be clearly marked "NOT AN EXIT" or must be marked by a sign indicating their actual use e.g., "STORAGE ROOM", "TO BASEMENT", etc.



3. When the direction to the nearest exit may not be apparent to an occupant, an exit sign with an arrow indicating direction must be used.

4. Exit access must be arranged so that it is unnecessary to travel toward any area of high hazard potential in order to reach the nearest exit (unless the path of travel is effectively shielded by suitable partitions or other physical barriers).

5. Nothing may impair the visibility of the exit sign, such as decorations, furnishings, or other signs.

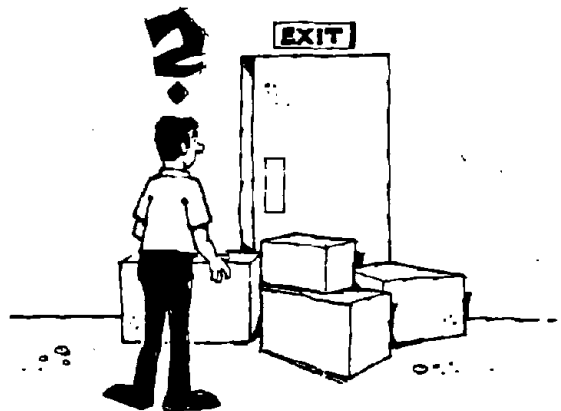
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FREQUENTLY VIOLATED REGULATIONS EXITS AND EXIT MARKINGS (cont)



6. A door from a room to an exit or to a way of exit access must be of the side-hinged swinging type. It must swing out in the direction of travel if:

- a. 50 or more persons occupy a room or
- b. the exit is for an area of high hazard potential.



7. Areas around exit doors and passageways leading to and from the exit must be free of obstructions. The exit route must lead to a public way.

8. If occupancy is permitted at night; or if normal lighting levels are reduced at times during working hours, exit signs must be suitably illuminated by a reliable light source.

9. No lock or fastening may be used to prevent escape from inside the building.

10. Where occupants may be endangered by the blocking of any single exit due to fire or smoke, there must be at least two means of exit remote from each other.

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FREQUENTLY VIOLATED REGULATIONS

PERSONAL PROTECTIVE EQUIPMENT

1. Protective eye and face equipment is required where there is a reasonable chance of injury that can be prevented by such equipment.

2. When machines or operations present the hazard of flying objects, glare, and splash from injurious liquids, suitable eye protectors must be provided.

3. Where there is a reasonable probability of foot or toe injury from impact and compression forces, safety footwear must be provided.

4. Employees helping customers with groceries outside the store should wear shoes with slip resistant soles to reduce slips and falls.

5. If there is a danger from falling of flying objects, head protective helmets must be provided.



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FREQUENTLY VIOLATED REGULATIONS

SANITATION

General Requirements

In any establishment where food is handled, processed or sold, sanitation of the highest order should be maintained.

1. All places of employment shall be kept orderly and in a sanitary condition.



2. The floor of every workroom shall be kept in a clean, and if possible, dry condition. Where wet processes are used, drainage shall be provided. Platforms, mats or other dry standing spaces should be provided if practical.

3. Waste disposal. Any container used for solid or liquid waste that may spoil shall be made leak proof, easy to clean and be kept clean. The container shall have a tight fitting cover, unless it can be maintained in a sanitary condition without a cover.

Rodent, Insect and Vermin Control

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

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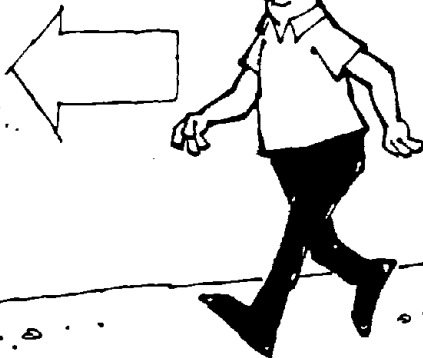
FREQUENTLY VIOLATED REGULATIONS SANITATION (Cont.)

Federal Standards for Occupational Safety and Health which apply to your place of business require that:



1. Safe drinking water is provided in all places of employment. A common drinking cup is forbidden.
2. Receptacles for waste food are to be covered and kept in a clean and sanitary condition.
3. Restrooms are kept in a clean and sanitary condition, including covered containers for sanitary napkins.

REST ROOMS



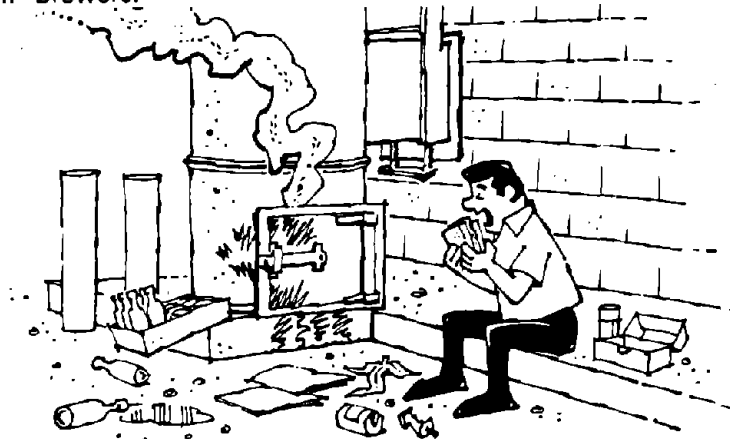
4. Toilet facilities are provided for each sex, except where the toilet room will be occupied by only one person at a time. It is necessary that the toilet can be locked from the inside, and that it contain at least one water basin.

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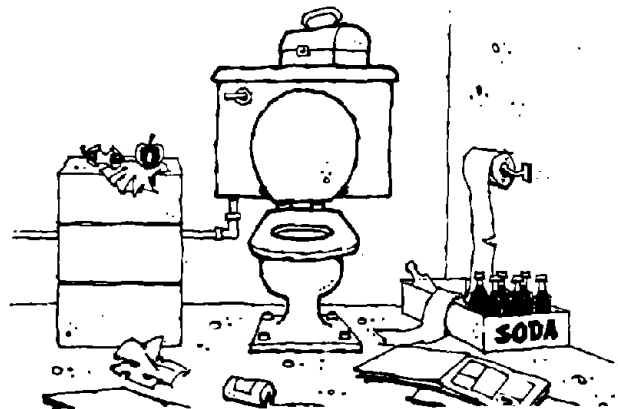
FREQUENTLY VIOLATED REGULATIONS SANITATION (Cont.)

5. Approximately one toilet and one lavatory should be provided for every fifteen employees.

6. Each lavatory has hot and cold or tepid running water, hand soap, hand towels, cloth or paper, or warm air blowers.



7. No employee is allowed to eat or drink in a toilet room or in any area exposed to toxic materials.



8. No food or beverages are stored in a toilet room or in an area exposed to toxic materials.

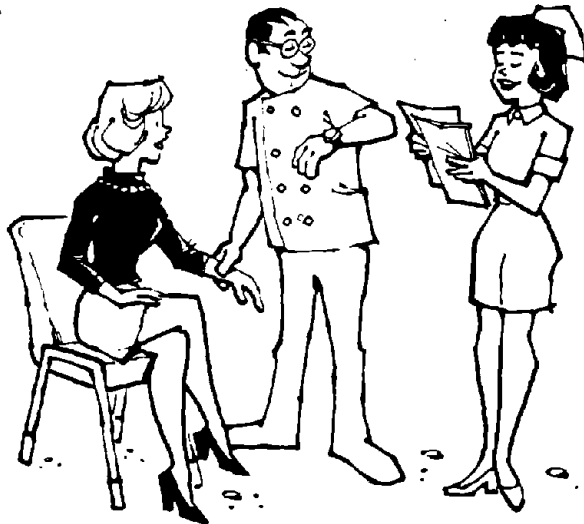
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FREQUENTLY VIOLATED REGULATIONS

MEDICAL AND FIRST AID

The employer interested in maintaining production, preventing loss of work time, receiving efficient employee performance, and achieving good morale, should adopt ways of preserving his employees' health. A good practice is to require pre-placement medical examinations to insure that prospective employees are physically able to do the specific work. Periodic health evaluations for hazardous jobs and early treatment of any illness or injury should also be encouraged. On matters of health, medical personnel must be readily available by phone or on-site for advice and consultation.

Emergency phone numbers should be posted near telephones. Stretchers and warm blankets should be available for prompt transportation of injured or ill employees to a hospital.



In the absence of an infirmary, clinic, or hospital in near proximity to the workplace (usually interpreted to be within 10 minutes under worst conditions) which is used for treatment of all injured employees the following are required:

1. At least one and preferably two employees on each shift should be adequately trained to render first aid. The American Red Cross, the U.S. Bureau of Mines, insurance carrier, local safety councils and others provide acceptable training.

NIOSH

FREQUENTLY VIOLATED REGULATIONS MEDICAL AND FIRST AID (Cont.)

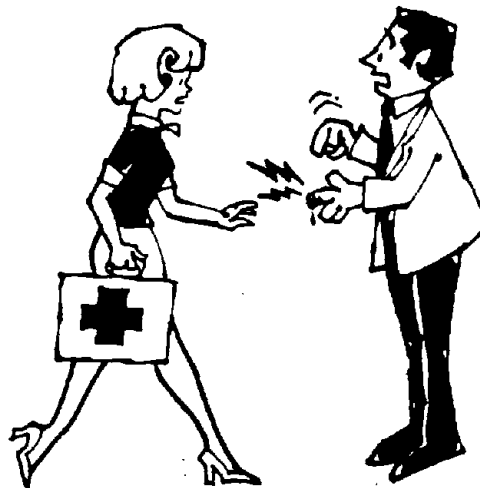
2. First aid kits must be readily available and approved by a consulting physician. The kits should be in sanitary containers with individually sealed packages for material such as gauze, bandages, and dressings that must be sterile. Other items often needed are adhesive tape, triangular bandages (to be used as slings), inflatable plastic splints, scissors and mild soap for cleansing of wounds or cuts.

Note:

First aid is immediate, temporary treatment given in the event of accident or illness—before the doctor arrives.

Most states have laws concerning medical practice which establish limits on first aid given by the lay person. Trained employees should understand where first aid ends and treatment by a physician begins.

Refer to RECORDKEEPING REQUIREMENTS toward the back of this Guide for records which must be maintained for occupational injuries and illnesses. The Emergency Information Chart (printed inside the back cover of this booklet) may also be helpful.



NIOSH

FREQUENTLY VIOLATED REGULATIONS

FIRE PROTECTION

Good Housekeeping Helps Prevent Fires

Maintaining a clean and orderly environment reduces the danger of fires. However the "sweep it under the rug" type of cleaning creates new built-in fire hazards. An example of such a hazard is the temporary storing of combustible waste in unsafe areas. Combustible material of any type should be kept only in spaces which are isolated by fire-resistive construction.

Rubbish should not be allowed to accumulate. A routine of safe disposal of rubbish should be followed. If it is necessary to store rubbish or combustible packing materials, a metal receptacle with a tight-fitting cover must be used.

The materials used for cleanup operations can create hazards. Combustible sweeping compounds such as oil-treated sawdust can be a fire hazard. Floor waxes containing low-flash-point solvents can be dangerous, especially when using electric polishers. A water-emulsion wax is preferred. All oily mops and rags must be stored in metal containers to reduce fire hazards.

Some common causes of fires in all businesses are:

1. Electrical malfunctions
2. Friction
3. Open flames
4. Sparks
5. Hot surfaces and
6. Smoking

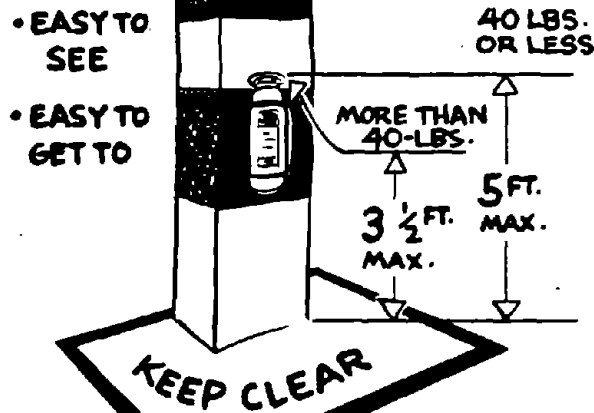
Proper maintenance and awareness of these conditions through a safety program can reduce these hazards.



NIOSH

FREQUENTLY VIOLATED REGULATIONS

FIRE PROTECTION (cont.)



PORTABLE FIRE EXTINGUISHERS MUST:

1. Be kept fully charged and in their designated places.
2. Be located along normal paths of travel.
3. Not be obstructed or obscured from view.
4. Not be mounted higher than 5 feet (to the top of the extinguisher) if 40 pounds or less, or 3½ feet if heavier.
5. Be inspected by management or a designated employee at least monthly to insure that they:
 - a. Are in their designated places.
 - b. Have not been tampered with or actuated.
 - c. Do not have corrosion or other impairment.
6. Be inspected at least yearly and/or recharged or repaired to insure operability and safety; a tag must be attached to show the maintenance or recharge date and signature or initials of the person performing the service.
7. Be hydrostatically tested. The extinguisher sales representative usually will perform this service at appropriate intervals.
8. Be selected on the basis of type of hazard, degree of hazard, and area to be protected.
9. Be placed so that the maximum travel distances, unless there are extremely hazardous conditions, do not exceed 75 feet for Class A or 50 feet for Class B.

A chart showing fire extinguishers by class and how to use them, is located in the back of this booklet.

NIOSH

FREQUENTLY VIOLATED REGULATIONS

MACHINE GUARDING (Cont.)

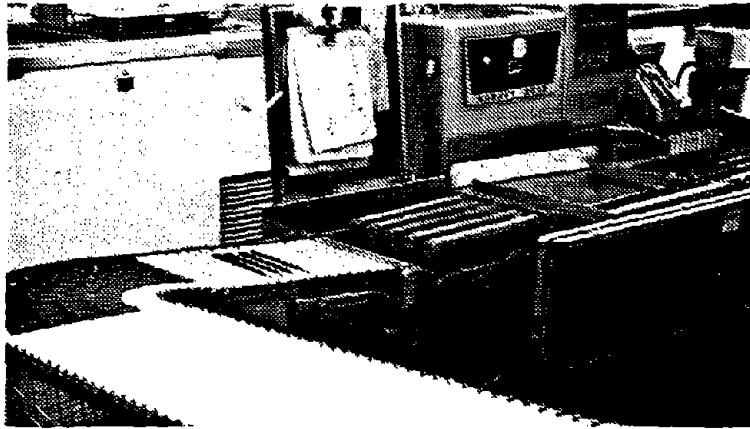
People react differently to the same environment because of physical, mental, and emotional differences. Some act safely, others unsafely. The behavior of the same person will vary from time to time. Because of this, even the well-coordinated and highly trained individual may at times perform unsafe acts leading to injury or death unless machinery in motion is properly guarded to protect the employee.

General Requirements for Machine Guarding

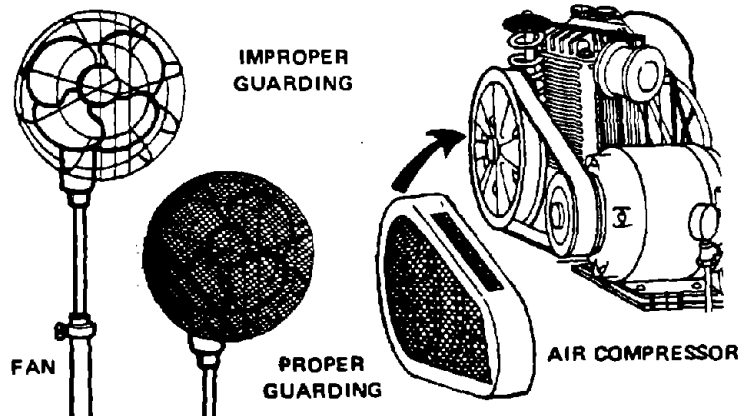
1. One or more methods of machine guarding must be provided to protect the operator and other employees in the machine area from hazards.
2. Guards must be attached to the machine if possible. The guard should be such that it does not constitute a hazard.
3. The guarding device must conform to appropriate standards, or if no standards exist, be designed and made to prevent the operator from having any part of the body in the danger zone during the operating cycle. Many equipment representatives can assist in obtaining the necessary protective devices. Also a booklet entitled "The Principles and Techniques of Mechanical Guarding" OSHA 2057 may be obtained by writing to the OSHA office in your region (listed in the back of this booklet.)
4. All belts, pulleys, gears, sprockets, and chain drives within reach must be effectively guarded.
5. Meat cutting knives are stored properly when not being used.
6. All fixed machinery (trimmers, meat saws, wrappers, etc.) is prevented from "walking" or "tipping".
7. The guard on the saw is adjusted to the size of the meat.

NIOSH

FREQUENTLY VIOLATED REGULATIONS MACHINE GUARDING (Cont.)



When roll conveyors are in working areas or at floor level, employees should be guarded from pinch points and moving parts. The moving parts of a conveyor create a hazard that may result in pinching or crushing fingers and catching loose clothing. Many times a guard railing is necessary to prevent material from running off the edge and falling to the floor. This is one of the major hazards of this type of conveyor.



1. Fans: If located within seven feet of the floor, shall be guarded with grille or mesh limiting openings to not more than $\frac{1}{2}$ inch.

2. Air compressors: Must have flywheel and drive pulley enclosed.

NIOSH

FREQUENTLY VIOLATED REGULATIONS

ELECTRICAL REQUIREMENTS

THE NATIONAL ELECTRICAL CODE

The National Electrical Code NFPA 70-1971; ANSI C1-1971 (Rev. of 1968), has been adopted as a national consensus standard and has been incorporated by reference in Subpart S—Electrical, of the Federal Register, 29 CFR 1910.

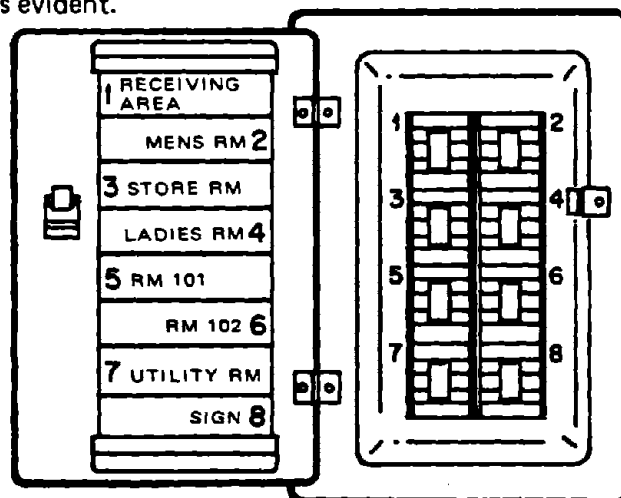
The purpose of the National Electrical Code is the practical safeguarding of any persons and of buildings and their contents from hazards arising from the use of electricity.

The National Electrical Code contains basic minimum provisions considered necessary for safety. **MORE FIRES ARE CAUSED BY ELECTRICAL MALFUNCTION THAN ANY OTHER CAUSE.**

All new electrical equipment and all replacement, repair or modification of existing electrical equipment must be in accordance with the revisions of the NEC, NFPA 70-1971. The electrician should be familiar with these requirements.

Standards pertaining to electrical requirements have been cited as violations more frequently than any other sub-part. It is required that:

- Each disconnecting means (i.e., circuit breakers; fuse box) must be legibly marked to indicate its purpose unless its purpose is evident.

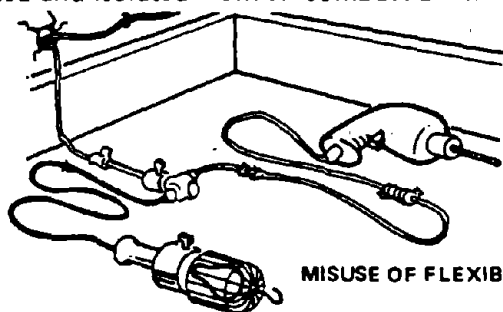


Proper labelling of circuit breakers.

NIOSH

FREQUENTLY VIOLATED REGULATIONS ELECTRICAL REQUIREMENTS (Cont.)

- Exposed noncurrent-carrying metal parts of fixed equipment that may become energized under abnormal conditions must be grounded:
 - a. In wet or damp locations.
 - b. When in electrical contact with metal.
 - c. When operated in excess of 150 volts to ground.
- Exposed noncurrent-carrying metal parts of cord and plug-connected equipment, which are liable to become energized, must be grounded.
- Wherever wires are joined, such as at outlets, switches, junction boxes, etc., they must be covered.
- Parts of electrical equipment which in ordinary operation produce arcs, sparks, etc. must be enclosed unless they are separated and isolated from all combustible material.



MISUSE OF FLEXIBLE CORDS

- Flexible cords may not be used:
 - a. As a substitute for fixed wiring.
 - b. Where run through holes in walls, ceilings, or floors.
 - c. Where attached to building surfaces.
- Flexible cords must be:
 - a. Continuous lengths without splices or taps.
 - b. Fastened so that there is no pull on joints or screws.
 - c. Replaced when frayed or insulation deteriorated.
 - d. Equipment connected by flexible cords must be grounded either by a 3 wire cord or by a separate groundwire.

NIOSH

RECORDKEEPING REQUIREMENTS

Recordkeeping requirements under OSHA compile factual information about accidents that have happened. These records provide employers with a measure for evaluating the success of their health and safety activities and of identifying high risk areas of the business to which attention should be directed. Federal regulations require that employers with 11 or more employees at any time during the calendar year are required to complete OSHA Forms 100, 101 (or their equivalent), and 102. These records must be maintained for five years, excluding the current year. Forms 100 and 101 must be kept current to within 6 days.

The types of work-related injuries and illnesses which must be recorded are those involving fatalities, lost workdays, or those which are nonfatal and do not cause lost workdays for the employee, but do not require medical treatment, job transfer or termination, or resulted in loss of consciousness. Employers are also required to report within 48 hours to OSHA any occurrence of a work-related fatal accident, or an accident requiring the hospitalization of five or more employees. An annual summary, Form 102, must be posted for the entire month of February.

Employers are required to maintain accurate records of certain potentially toxic or harmful physical agents which must be monitored or measured, and to promptly advise any employee of any excessive exposure and the corrective action undertaken. Examples are asbestos, ionizing radiation, etc.

For more detailed information, the booklet "Recordkeeping Requirements Under the Williams-Steiger Occupational Safety and Health Act of 1970" is available from OSHA.

NIOSH

RECORD KEEPING REQUIREMENTS (Cont.)

job safety and health protection

Citation:

If upon inspection OSHA believes an employer has violated the Act, a citation alleging such violations will be issued to the employer. Each citation will specify a time period within which the alleged violation must be corrected.

Proposed Penalty:

The OSHA citation must be prominently displayed at or near the place of alleged violation for three days or until it is corrected, whichever is later, to warn employees of dangers that may exist there.

The Act provides for mandatory penalties against employers of up to \$1,000 for each serious violation and for criminal penalties of up to \$1,000 for each nonserious violation. Penalties of up to \$1,000 per day may be proposed for failure to correct violations within the prescribed time period. Also any employer who willfully or repeatedly violates the Act may be assessed penalties of up to \$10,000 for each such violation.

Criminal penalties are also provided for in the Act. Any willful violation resulting in death of an employee upon conviction is punishable by a fine of not more than \$10,000 or by imprisonment for not more than six months, or by both. Conviction of an employer after a first conviction doubles these maximum penalties.

Voluntary Activity:

While providing penalties for violations, the Act also encourages efforts by labor and management, before an OSHA inspection, to reduce injuries and illnesses arising out of employment.

More Information:

Additional information and copies of the Act, specific OSHA safety and health standards, and other applicable regulations may be obtained from the nearest OSHA Regional Office in the following locations:

Atlanta, Georgia
Boston, Massachusetts
Chicago, Illinois
Dallas, Texas
Denver, Colorado
Kansas City, Missouri
New York, New York
Philadelphia, Pennsylvania
San Francisco, California
Seattle, Washington

Telephone numbers for these offices and additional Area Office locations are listed in the telephone directory under the United States Department of Labor in the United States Government listing.

Employers:

The Occupational Safety and Health Act of 1970 provides job safety and health protection for workers through the promotion of safe and healthful working conditions throughout the Nation. Requirements of the Act include the following:

Each employer shall furnish to each of his employees employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious harm to his employees, and shall comply with occupational safety and health standards issued under the Act.

Employees:

Each employee shall comply with all occupational safety and health standards, rules, regulations and orders issued under the Act that apply to his own actions and conduct on the job.

The Occupational Safety and Health Administration (OSHA) of the Department of Labor has the primary responsibility for administering the Act. OSHA issues occupational safety and health standards and its Compliance Safety and Health Officers conduct job site inspections to ensure compliance with the Act.

Inspection:

The Act requires that a representative of the employee and a representative authorized by the employer be given an opportunity to accompany the OSHA inspector for the purpose of aiding the inspection.

Where there is no authorized employee representative, the OSHA Compliance Officer must consult with a reasonable number of employees concerning safety and health conditions in the workplace.

Complaint:

Employees or their representatives have the right to file a complaint with the nearest OSHA office requesting an inspection if they believe unsafe or unhealthy conditions exist in their workplace. OSHA will withhold on request names of employees complaining.

The Act provides that employers may not be discharged or discriminated against in any way for filing safety and health complaints or otherwise exercising their rights under the Act.

An employee who believes he has been discriminated against may file a complaint with the nearest OSHA office within 30 days of the alleged discrimination.



Washington, D.C.
2074
OSHA-1203

Robert J. Brennan
Robert J. Brennan
Secretary of Labor

U.S. Department of Labor
Occupational Safety and Health Administration

Employers must post one of the full size versions (10x16) of this type of OSHA poster or a state-approved poster where required.

NIOSH

CHECKLISTS

Since safe conditions depend on vigilance for possible hazards and immediate remedial action, periodic inspections are one of the most important aspects of a successful safety and health program.

Management will find a checklist, such as the one presented on the following pages, of help in performing a self-inspection of its facility. Because businesses vary, it is best that each business develop its own tailor-made list from the information in this booklet and a walk-through inspection of the operation.

Then, using this checklist, the manager, supervisor, or employee representative makes periodic inspections (preferably at least once each month) to correct problem areas that have "NO" checked.

Reference made in the CHECKLIST subtitles refers to appropriate sections of Title 29 of the Code of Federal Regulations (CFR), commonly called the "1910 Occupational Health and Safety Standards".



NIOSH

CHECKLISTS (Cont.)

WALKING AND WORKING SURFACES

AISLES AND FLOORS (29CFR 1910.22)

	Yes	No
Are all places of employment kept clean and orderly? _____	☐	☐
Are floors, aisles and passageways kept clean and dry and all spills cleaned up immediately? _____	☐	☐
Are floor holes, such as drains, covered? _____	☐	☐
Are permanent aisles appropriately marked? _____	☐	☐
Are wet surface areas covered with non-slip materials? _____	☐	☐

STORAGE LOFTS, SECOND FLOORS, ETC. (29CFR 1910.22, .23)

Are signs showing floor-load capacity present (except ground floors with no basements)? _____	☐	☐
Are storage lofts, balconies, etc. that are more than 4 feet above the floor protected with standard guardrails? _____	☐	☐
Are all lofts and balconies where people or machinery could be exposed to falling objects, guarded with standard 4-inch toeboards? _____	☐	☐

STAIRS (29CFR 1910.24)

Are there standard stair rails on all stairways of more than 4 stairs? _____	☐	☐
--	--------------------------	--------------------------

NIOSH

CHECKLISTS (Cont.)

STAIRS (29CFR 1910.24)

	Yes	No
Are there standard stair rails (34") on all stairways of more than 4 stairs? _____	☐	☐
Are there standard stair rails (34") on all stairways having open sides? _____	☐	☐
Are all stairways at least 22 inches wide? _____	☐	☐
Do stairs have at least a 7-foot overhead clearance? _____	☐	☐
Do stairs angle no more than 50° and no less than 30° (preferred angle)? _____	☐	☐
Are stairs and rack surfaces maintained free of tripping and slipping hazards? _____	☐	☐

LADDERS (29CFR 1910.25., .26, .27)

Have defective ladders (e.g. broken rungs, side rails, etc.) been removed from service for repair or destruction and tagged as "Dangerous Do Not Use"? _____	☐	☐
Is it prohibited to use the top of an ordinary step ladder as a step? _____	☐	☐
Do fixed ladders have at least 3½ feet extensions at the top of the landing? _____	☐	☐
Do portable rung ladders have non-slip bases? _____	☐	☐

NIOSH

CHECKLISTS (Cont.)

	Yes	No
Is the distance between the centerline of rungs on a fixed ladder and the nearest permanent object in back of the ladder at least 7"?	☐	☐
Do all fixed ladders have a preferred angle of 75°-90°?	☐	☐
EGRESS (29CFR 1910.36-.38)		
Are all exits marked with an exit sign and illuminated by a reliable light source?	☐	☐
Is the lettering at least 6 inches high with the principal letter strokes at least 3/4-inch wide?	☐	☐
Is the direction of exits, when not immediately apparent, marked with visible signs?	☐	☐
Are doors or other passageways, that are neither exits nor access to an exit, and located where they may be mistaken for exits, appropriately marked "Not An Exit", "To Basement", "Storeroom", etc.?	☐	☐
Are exit doors side-hinged?	☐	☐
Are all doors that must be passed through to reach an exit or way to an exit, always free to access with no possibility of a person being locked inside?	☐	☐
Are all exits always kept free of obstructions?	☐	☐

NIOSH

CHECKLISTS (Cont.)

MEDICAL AND FIRST AID (29CFR 1910.151)

Yes No

In the absence of a nearby clinic or hospital, is at least one employee on each shift currently qualified to render first aid? (Some states require first aid trained persons regardless of nearby clinics or hospitals.)

☐ ☐

Are approved first aid supplies readily available, inspected and replenished?

☐ ☐

Are medical personnel readily available for advice and consultation on matters of plant health?

☐ ☐

PERSONAL PROTECTIVE EQUIPMENT (29CFR 1910.132-137)

Is personal protective equipment provided, used and maintained where ever it is necessary by reason of hazards?

☐ ☐

Do you have emergency phone numbers posted?

☐ ☐

Is employee owned personal protective equipment, such as gloves, protective shoes, etc., adequate, sanitary, and properly maintained?

☐ ☐



CHECKLISTS (Cont.)

SANITATION (29CFR 1910.141-149)

	Yes	No
Are restrooms and wash rooms kept in clean and sanitary condition? _____	☐	☐
Are covered receptacles for waste food kept in a clean and sanitary condition? _____	☐	☐
Are covered receptacles provided in the women's rest room for sanitary napkins? _____	☐	☐
Is all water that is provided for drinking, washing and cooking, suitable for drinking? _____	☐	☐
Are all outlets for water that is not suitable for drinking, clearly posted as unsafe for drinking, washing or cooking? _____	☐	☐
Are employees prohibited from eating in areas where toxic materials are present? _____	☐	☐
Has pest control been exercised? _____	☐	☐
If employees are permitted to eat on the premises, are they provided with a suitable space for that purpose? _____	☐	☐

CHECKLISTS (Cont.)**FIRE PROTECTION (29 CFR 1910.157, .159, .160)**

	Yes	No
Are extinguishers selected for type of materials in areas where they are to be used?		
Class A. Ordinary combustible material fires		
Class B. Flammable liquid, gas or grease fires		
Class C. Energized electrical equipment fires		
Are extinguishers fully charged and mounted in designated places?		
Are extinguishers located along normal paths of travel?		
Are extinguishers free from obstruction or blockage?		
Are extinguishers not mounted too high? If less than 40 lbs., the top must be below 5 ft. above floor—greater than 40 lbs., the top must be below 3½ ft. above floor.		
Have all extinguishers been serviced, maintained and tagged at intervals not to exceed 1 year?		
Are all extinguishers checked (by management or designated employee) monthly to see if they are in place or if they have been activated, etc.?		
Have all extinguishers been hydrostatically tested according to schedules set for the type of extinguisher?		

CHECKLISTS (Cont.)**MACHINE AND MACHINE GUARDING
(CFR 1910.212)**

	Yes	No
Are all points of power transmission properly guarded? (e.g. belts and pulleys on motors, compressors, rotating shafts, sprockets and gears, etc.) _____	☐	☐
Are all points of operation guarded? (e.g. meat grinders, meat saws, cubing machines, wrapping machines.) _____	☐	☐
Are meat cutting knives properly stored (in openings on the side or in back of cutting table) when not being used? _____	☐	☐
Are all fan blades seven feet or less from the floor guarded in such a manner that there exist no openings greater than ½ inch? _____	☐	☐
Is all fixed machinery (trimmers, meat saws, wrappers, etc.) securely anchored to prevent movement? _____	☐	☐
Is the hot wire on the wrapping machine kept taut and the roller kept so that the wrapping film is kept tight to provide a quick, clean cut (the least amount of fumes)? _____	☐	☐
Are sprockets and V-belt drives within reach of platforms and passageways or less than 7 feet from the floor completely enclosed? _____	☐	☐
Is all fixed machinery securely anchored to prevent movement? _____	☐	☐

NIOSH

CHECKLISTS (Cont.)

NATIONAL ELECTRICAL CODE

ELECTRICAL WIRING

Yes No

Is electrical equipment accessible, in good repair and approved for the location?

☐ ☐

Have exposed wires, frayed cords, deteriorated insulation been repaired or replaced?

☐ ☐

Are junction boxes, outlets, switches, etc. covered? _____

☐ ☐

Are breaker switches identified as to their use? _____

☐ ☐

GROUNDING

Is all metal, fixed equipment grounded?

☐ ☐

Does all equipment connected by cord and plug have grounded connections?

☐ ☐

Are appliances such as vacuums, polishers, vending machines, etc. grounded?

☐ ☐

Do all hand and power tools have double insulation or are they grounded?

☐ ☐

Do all extension cords being used have a ground wire?

☐ ☐

Are all plugs equipped with ground pins?

☐ ☐

CHECKLISTS (Cont.)

FLEXIBLE CORDS AND CABLES

Yes No

Do flexible cords and cables not run through holes in wall or ceiling?

☐ ☐

Are flexible cords and cables free from splices or tap? _____

☐ ☐

Are flexible cords and cables fastened so that there is no direct pull on joints or terminal screws? _____

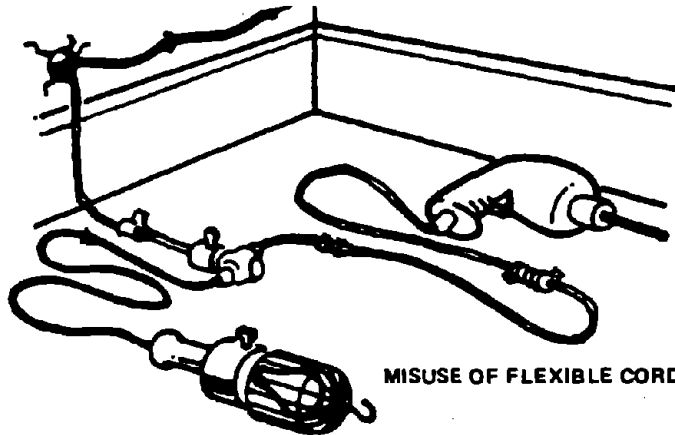
☐ ☐

Are flexible cords and cables never substituted for fixed wiring? _____

☐ ☐

Are flexible cords and cables not attached to building surfaces? _____

☐ ☐



MISUSE OF FLEXIBLE CORDS



CHECKLISTS (Cont.)

RECORDKEEPING (29CFR 1904.2-8)

	Yes	No
Is employee poster (OSHA or equivalent state poster) prominently displayed? _____	☐	☐
Have occupational injuries or illnesses, except minor injuries requiring only first aid, been recorded on OSHA Form No. 100 and 101, or equivalent? _____	☐	☐
Have you compiled a summary of all occupational injuries and illnesses at the conclusion of each calendar year and recorded on OSHA Form No. 102, or equivalent and posted by February 1 for a period of 30 calendar days? _____	☐	☐
Have all OSHA records been retained for a period of five years, excluding the year to which they relate? _____	☐	☐

NIOSH

INFORMATION SOURCES

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1430 Broadway, New York, N.Y. 10018

- ☐ A12.1 Floor and Wall Openings
- ☐ A14.1 Portable Wood Ladders
- ☐ A58.1 Minimum Design Load
- ☐ A64.1 Fixed Stairs
- ☐ B15.1 Mechanical Power Transmission
- ☐ C1 National Electric Code
- ☐ Z4.1 Sanitation in Places of Employment

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
60 Batterymarch Street
Boston, Mass. 02110

- ☐ NFPA-10-1970
- ☐ NFPA-101-1970
- ☐ NFPA-13A-1971
- ☐ NFPA-17-1969

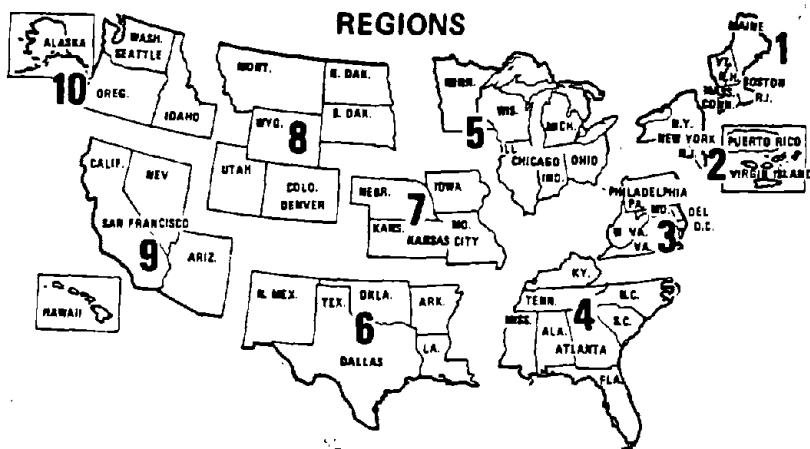
NATIONAL SAFETY COUNCIL
425 North Michigan Avenue
Chicago, Illinois 60611

NIOSH AND OSHA REGIONAL DIRECTORS
(See List)

Trade associations and your insurance companies can also provide useful information. The Small Business Administration will provide information concerning procedures for securing economic assistance in compliance with the OSHA Standards (if needed).

NIOSH AND OSHA REGIONAL OFFICES

The following pages list NIOSH and OSHA regional offices. Either of these facilities serving the state can provide information on the Occupational Safety and Health Act including questions on standards interpretations, voluntary compliance information, copies of the OSHA Standards, OSHA Act, Employee Rights Posting Notice, and other OSHA publications.



NIOSH REGIONAL OFFICES

DHEW, Region I
Government Center (JFK Fed. Bldg.)
Boston, Massachusetts 02203
Tel.: 617/223-5807

DHEW, Region II—Federal Building
26 Federal Plaza
New York, New York 10007
Tel.: 212/264-2485

DHEW, Region III
3525 Market Street P.O. Box 13716
Philadelphia, Pennsylvania 19101
Tel.: 215/597-6716

DHEW, Region IV
50 Seventh Street, N.E.
Atlanta, Georgia 30323
Tel.: 404/526-5474

DHEW, Region V
300 South Wacker Drive
Chicago, Illinois 60607
Tel.: 312/353-1710

DHEW, Region VI
1114 Commerce Street (Rm. 8-C-53)
Dallas, Texas 75202
Tel.: 214/749-2261

DHEW, Region VII
601 East 12th Street
Kansas City, Missouri 64106
Tel.: 816/374-5332

DHEW, Region VIII
19th & Stout Streets
9017 Federal Building
Denver, Colorado 80202
Tel.: 303/837-3979

DHEW, Region IX
50 Fulton Street (254 FOB)
San Francisco, California 94012
Tel.: 415/556-3781

DHEW, Region X
1321 Second Avenue (Arcade Bldg.)
Seattle, Washington 98101
Tel.: 206/442-0530

OSHA REGIONAL OFFICES

Region I

U.S. Department of Labor
Occupational Safety and Health Administration
18 Oliver Street, Fifth Floor
Boston, Massachusetts 02110 Telephone: 617/223-6712/3

Region II

U.S. Department of Labor
Occupational Safety and Health Administration
1515 Broadway (1 Astor Plaza)
New York, New York 10036 Telephone: 212/971-5941/2

Region III

U.S. Department of Labor
Occupational Safety and Health Administration
15220 Gateway Center, 3535 Market Street
Philadelphia, Pennsylvania 19104 Telephone: 215/597-1201

Region IV

U.S. Department of Labor
Occupational Safety and Health Administration
1375 Peachtree Street, N.E., Suite 587
Atlanta, Georgia 30309 Telephone: 404/526-3573/4 or 2281/2

Region V

U.S. Department of Labor
Occupational Safety and Health Administration
300 South Wacker Drive, Room 1201
Chicago, Illinois 60606 Telephone: 312/353-4716/7

Region VI

U.S. Department of Labor
Occupational Safety and Health Administration
7th Floor, Texaco Building, 1512 Commerce Street
Dallas, Texas 75201 Telephone: 214/749-2477/8/9 or 2567

Region VII

U.S. Department of Labor
Occupational Safety and Health Administration
Waltower Building, Room 300, 823 Walnut Street
Kansas City, Missouri 64106 Telephone: 816/374-5249 or 5240

Region VIII

U.S. Department of Labor
Occupational Safety and Health Administration
Federal Building, Room 15010, 1961 Stout Street
Denver, Colorado 80202 Telephone: 303/837-3883

Region IX

U.S. Department of Labor
Occupational Safety and Health Administration
9470 Federal Building, 450 Golden Gate Avenue
Post Office Box 36017
San Francisco, California 94102 Telephone: 415/556-0584

Region X

U.S. Department of Labor
Occupational Safety and Health Administration
1808 Smith Tower Building, 506 Second Avenue
Seattle, Washington 98104 Telephone: 206/442-5930

U.S. GOVERNMENT PRINTING OFFICE: 1979-639-439

HOW TO OPERATE

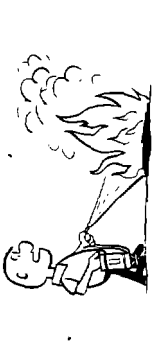
FOAM: Don't Play Stream into the Burning Liquid. Allow Foam to Fall Lightly on Fire.



CARBON DIOXIDE: Direct Discharge as Close to Fire as Possible. First at Edge of Flames and Gradually Forward and Upward



SODA-ACID, GAS CARTRIDGE. Direct Stream at Base of Flame



PUMP TANK: Place Foot on Footrest and Direct Stream at Base of Flames



DRY CHEMICAL: Direct at the Base of the Flames. In the Case of Class A Fires, Follow Up by Directing the Dry Chemicals at Remaining Material That is Burning



APPROVED TYPE OF EXTINGUISHER

MATCH UP PROPER EXTINGUISHER WITH CLASS OF FIRE SHOWN AT LEFT

FOAM Solution of Aluminum Sulphate and Bicarbonate of Soda	CARBON DIOXIDE Carbon Dioxide Gas Under Pressure	SODA ACID Bicarbonate of Soda Solution and Sulphuric Acid	PUMP TANK Plain Water	GAS CART-RIDGE Water Expelled by Carbon Dioxide Gas	MULTI-PURPOSE DRY CHEMICAL	ORDINARY DRY CHEMICAL

KIND OF FIRE

DECIDE THE CLASS OF FIRE YOU ARE FIGHTING. ... THEN CHECK THE COLUMNS TO THE RIGHT OF THAT CLASS

CLASS A FIRES
USE THESE EXTINGUISHERS

ORDINARY COMBUSTIBLES

- WOOD
- PAPER
- CLOTH
- ETC.

CLASS B FIRES
USE THESE EXTINGUISHERS

FLAMMABLE LIQUIDS, GREASE

- GASOLINE
- PAINTS
- OILS, ETC.

CLASS C FIRES
USE THESE EXTINGUISHERS

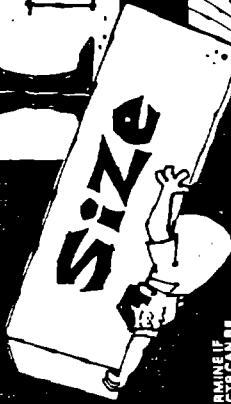
ELECTRICAL EQUIPMENT

- MOTORS
- SWITCHES
- ETC.

HOW TO LIFT SAFELY

The following safe practices should be observed in order to avoid injury.

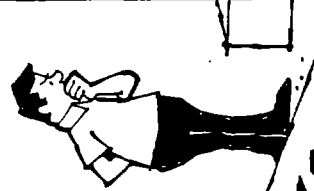
The factors that contribute to safe lifting are...



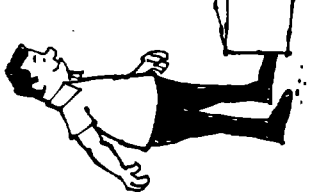
DETERMINE IF OBJECT CAN BE LIFTED AND CARRIED SAFELY.



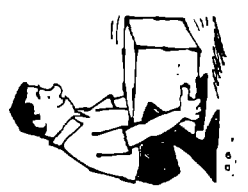
1. Approach the load and size it up (weight, size and shape.) Consider your physical ability to handle the load.



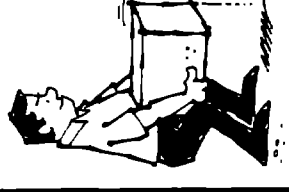
2. Place the feet close to the object to be lifted 8 to 12 inches apart for good balance.



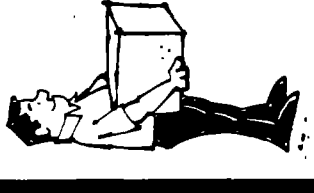
3. Bend the knees to the degree that is comfortable and get a good handhold. Then using both leg and back muscles...



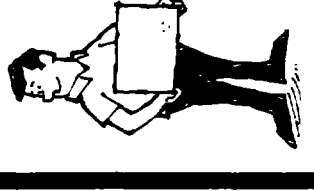
4. Lift the load straight up—smoothly and evenly. Pushing with your legs. Keep load close to your body.



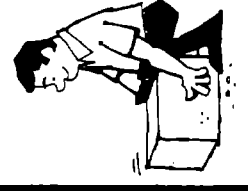
5. Lift the object into carrying position, making no turning or twisting movements until the lift is completed.



6. Turn your body with changes of foot position after looking over your path of travel making sure it is clear.

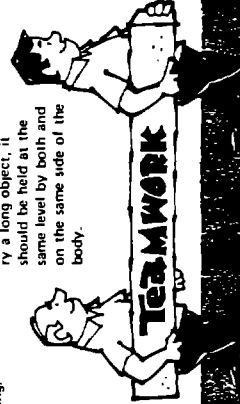


7. Setting the load down, is just as important as picking it up. Using leg and back muscles, comfortably lower load by bending your knees. When load is securely positioned, release your grip.

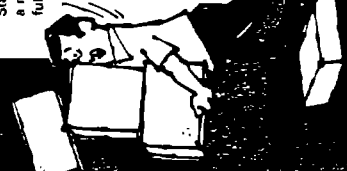


When lifting and carrying with another person—teamwork is important. The load should be equally distributed. Movements must be coordinated so you both start and finish the lift action at the same time and perform turning movements together.

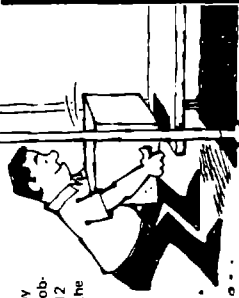
When two persons carry a long object, it should be held at the same level by both and on the same side of the body.



Stack material in such a manner as to permit full view while carrying.



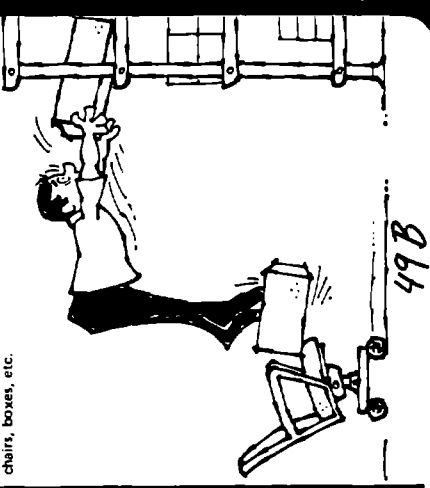
Avoid strain by storing heavy objects at least 12 inches above the floor.



Avoid awkward positions or twisting movements while lifting.



Over-reaching and stretching to reach overhead objects may result in strains or falls. Use a ladder instead of chairs, boxes, etc.



49B

EMERGENCY INFORMATION

FIRE

Telephone Fire Department _____

Nearest Alarm Box at _____

CRIME

Telephone Police _____

INJURY/ILLNESSES

Avoid infection of minor injuries; always get medical attention or skilled first aid.

Doctor _____

Office _____ Tel. _____

Residence _____ Tel. _____

Hospital _____

Address _____ Tel. _____

Ambulance _____

Address _____ Tel. _____

(In emergencies, get medical attention and transportation elsewhere if necessary.)

In all cases of Fire, Crime, Accident, or Sickness, promptly notify:

1. Name _____ Office Tel. _____

Address _____ Res. Tel. _____

or

2. Name _____ Office Tel. _____

Address _____ Res. Tel. _____