

UNITED STATES DEPARTMENT OF AGRICULTURE
FOOD SAFETY AND INSPECTION SERVICE
WASHINGTON, DC

FSIS DIRECTIVE

4791.6
REVISION 2

11/9/00

PROCEDURES FOR WORKPLACE AND TRAVEL EMERGENCIES

I. PURPOSE

This directive provides procedures for handling emergencies in the workplace and during travel. ■

II. CANCELLATION

This directive cancels FSIS Directive 4791.6 Revision 1, dated 1/24/95.

III. REASON FOR REISSUANCE

The directive is reissued to expand coverage, provide instructions for reporting non-compliant workplaces, and require designated primary and alternate assembly points. ■
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■

IV. REFERENCES

FSIS Directive 4610.3, Service During Work Stoppages in Connection
With Strikes, Floods, or Other Emergency Conditions
FSIS Directive 4630.2, Leave
FSIS Directive 4791.1, Basic Occupational Safety and Health Program
FSIS Directive 4791.12, Reporting and Correcting Occupational Hazards
FSIS Directive 4792.1, First Aid
29 CFR Subpart E, OSHA's Means of Egress Standard
41 CFR, Part 101.20.5, Physical Security
Bureau of Alcohol, Tobacco, and Firearms Publication 7550.2,
Bomb and Physical Security
Federal Employees' Compensation Act ■
National Fire Protection Association's Life Safety Code

DISTRIBUTION:

All Offices; All Inspectors; Plant
Management; T/A Plant Management;
T/A Inspectors; Union Officials

OPI:

ASD – Environmental, Health and
Safety Branch

V. ABBREVIATIONS AND FORMS

The following will appear in their shortened form in this directive:

IIC	Inspector-In-Charge	■
lbf.	pounds-force	■
OEP	Occupant Emergency Plan	■
FSIS Form 4791-21, FSIS Occupant Emergency Plan		
FSIS Form 4791-27, Report of Alleged Safety or Health Hazard		■

VI. DEFINITIONS

Emergencies. Fires, explosions, chemical spills, leaks and releases, bombings, bomb threats, civil disturbances, hurricanes, tornadoes, earthquakes, blizzards, floods, power failures, and personal injuries.

VII. COVERAGE

This directive is primarily directed to FSIS employees who perform duties at private sector workplaces. Federally owned or leased workplaces should have **established** OEP's. Supervisors should contact building managers or the local Federal Protective Service to receive information or assistance about OEP's at federally owned or leased workplaces. This directive also applies to FSIS employees:

- A. Traveling between workplaces in a motor vehicle, plane, train, subway or bus. ■
- B. Traveling on business. ■
- C. Working on detail away from the regular workplace. ■
- D. Performing services at home. ■
- E. Attending meetings, conferences or training away from the regular workplace. ■

VIII. DEVELOPING AN OCCUPANT EMERGENCY PLAN

A. If no OEP exists, IIC's or supervisors develop and implement a written OEP for every workplace and enter information on FSIS Form 4791-21. (See Attachment 1.) The OEP should be comprehensive enough to deal with all emergencies reasonably expected to occur. Post the OEP on the Government bulletin board or in an appropriate location for employees to review.

B. A standardized OEP for the entire workplace is acceptable. At multi-employer workplaces, such as meat and poultry plants, the employers may coordinate **one** standardized OEP.

C. The OEP must include, at a minimum, the following:

1. An emergency procedure plan that covers all emergencies for the workplace including a floor plan or map clearly identifying the escape and alternative escape routes. ■
■
■

2. Procedures for employees who remain to perform (or shut down) critical operations before evacuating. **NOTE:** FSIS employees do not shut down meat, poultry, or egg products plant operations. However, shut down may apply at laboratories. ■

3. Procedures to account for all employees after an emergency evacuation. The procedures identify a primary and alternate evacuation assembly point. ■
■

4. Instructions for reporting emergencies.

5. Duties of the warden and employees trained to give first aid.

6. Names or job titles of persons to contact for further information.

IX. **REPORTING NON-COMPLIANT WORKPLACES**

When workplaces do not have OEP's that comply with OSHA's Means of Egress Standard (see Attachment 2), file a report on FSIS Form 4791-27. Follow the instructions in FSIS Directive 4791.12 to file a report. The IIC or supervisor may contact workplace safety and health officials for assistance or guidance to develop revisions to OEP's. ■
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■
■
■

X. **RESPONSIBILITIES**

A. **IIC or Supervisor.** The FSIS supervisor and IIC are responsible for the safety and health of their subordinates. The IIC or supervisor:

1. Serves as the emergency coordinator who briefs employees.

2. Provides training on the OEP to newly assigned employees. ■
Training should address hazards that may require the use of the OEP. ■

3. Communicates continuously with plant management on changes to the OEP.

4. Designates an alternate command center, alternate coordinator, warden, and first-aiders.

5. Assesses the emergency and determines the response when there is advance information.

6. Notifies subordinates and plant management of any actual or potential emergencies, such as those defined in Paragraph VI. ■ ■

7. Evacuates employees promptly when there is an immediate danger such as fire, explosion, or discovery of an explosive device.

8. Posts emergency telephone numbers near the telephone in the Government office. (See FSIS Directive 4792.1.)

9. Does not permit the use of Government seals or locks to secure exit doors and unborn animal handling areas.

B. **Warden.** If FSIS employees work in more than one building or on several floors of a building, the coordinator should designate a warden. A warden:

1. Knows the evacuation plan and escape routes.

2. Assists employees in evacuating.

3. Verifies evacuation of all employees at the specific location to the IIC or supervisor.

C. **Employees.**

1. Report emergency situations and follow instructions of the IIC and warden during an evacuation.

2. Know how to operate the electrical or mechanical alarm systems.

D. **FSIS Managers, Supervisors, and IIC.** Share information affecting the safety or health of co-workers and subordinates (**EXAMPLES:** Natural disasters, civil disturbances, fires, hazardous substances, bomb threats, and bomb explosions). ■ ■ ■

XI. **WORKPLACE SAFETY PROCEDURES**

A. **Procedure for Inspection Personnel.** Continue to report unsafe working conditions according to FSIS Directive 4791.12.

B. **Procedures to be Implemented by Establishments.** As a third party, plant owners * * * may be liable for injury to FSIS employees.

1. **Exit Doors.**

a. Workplace exits are identified with readily visible, internally or externally illuminated "Exit" signs. Any door, passage, or stairway that is not an exit will have a "Not an Exit" sign.

b. Exit doors are **always unlocked** when the building is **occupied**.

c. Locks or latches are used on exit doors in occupied buildings **only** under one of the following conditions:

(1) Building is protected by an operable automatic fire detection system or an operable automatic sprinkler system either of which unlocks the doors automatically when the system is actuated.

(2) Doors are secured by panic and fire exit hardware.

(3) Doors are secured by a latch that is operable with a single releasing motion. The force to release the latch may not exceed 15 lbf. Seals to secure a latch that meet the 15 lbf., or less requirement are available from commercial sources. **NOTE:** Numbered company seals, which plant management uses to secure unborn animal handling areas when visual supervision by inspection personnel is not possible, must meet the 15 lbf. or less requirement.

2. **Periodic Testing of Emergency Lighting Equipment.** Plant management maintains the useability of the egress system at all times. A functional test of the emergency lighting system is conducted at 30-day intervals for a minimum of 30 seconds. An annual test is conducted for a 1 and 1/2-hour duration. The alarm system is tested at least annually and a portion of the system is tested every month. The IIC should verify if the plant conducts maintenance and testing. However, it is not the responsibility of the IIC to actually perform the testing. ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

XII. **WORKPLACE EMERGENCY PROCEDURES**

A. **Command Centers.** When electricity and telephone services are disrupted, consider the command center to be the Government office at the plant or the designated alternate site.

B. **Bombs or Explosive Devices.**

1. Report location of a suspicious device or package according to the OEP.

2. Do not disturb the suspicious device or package.

3. Evacuate the building.

4. Do not re-enter the building until the device has been removed or disarmed and the IIC declares the building safe for re-entry.

C. **Chemical Spills, Leaks, and Emissions.** The IIC or supervisor should evacuate employees promptly when there is an immediate danger. Accidental release or first aid information for an exposure can be found on the material safety data sheet.

* * *

D. **Service During Work Stoppage in Connection with Strikes, Floods, or Other Emergency Conditions.** Report work stoppages immediately to program management officials. (See FSIS Directive 4610.3.)

E. **Involuntary Annual Leave or Leave Without Pay During Emergency Standby Service.** If employees cannot be used during work stoppages, place employees on involuntary annual leave or leave without pay status **only** after authorization has been obtained by the Human Resources office. * * * (See FSIS Directive 4630.2.)

XIII. **BOMB THREAT PROCEDURES**

A. **Bomb Threat.** The IIC should receive immediate notification from plant management if a bomb threat occurs. If the plant orders an evacuation or if a "search and evacuate if warranted" procedure is not approved, employees must evacuate.

B. **Alternatives when a Bomb Threat Occurs.** There are three alternatives when a bomb threat occurs: ■

1. **Ignore the threat.** Never ignore the threat. Bombs have been located based on threats. If the bomb threat caller thinks he or she is being ignored, the caller may plant a bomb. ■

2. **Evacuate Immediately.** This seems to be the preferred alternative. However, if the bomb threat caller is aware of the evacuation policy, repeat calls may cause a shut down of plant operations. ■

3. **Follow a "Search and Evacuate if Warranted" Procedure.** Searching for a suspicious package or device after a threat is received and evacuating if a device is found may be a preferred alternative. If a device is found, employees can quickly evacuate, avoiding the potential danger areas. This may not be as disruptive as an immediate evacuation. ■

a. **Approved Procedure.** Employees should follow the search and evacuate if warranted procedure only if the IIC or supervisor approves the plant's procedure and determines that the search team training is adequate. IIC's and supervisors use the following criteria to approve a search procedure: ■

are in writing. (1) The search and evacuate if warranted procedures ■
■

(2) The police, fire department, other Government ■
agencies, or appropriate private security consultants provide initial training. ■

(3) Trained replacements are assigned to search teams ■
to replace members no longer available. ■

(4) More than one individual searches an area or room. ■

(5) Occupants of an area or a room may make the initial ■
search. They are familiar with what does or does not belong in a particular area. They ■
must be trained in search techniques. ■

(6) When feasible, the initial task when entering an area ■
or room to be searched is listening for a clockwork device. ■

b. **Search Procedure.** The procedures below with variations ■
are **one** technique to search a room or area. ■

(1) Divide the area and select a search height. ■

(2) Start from the bottom and work up. ■

(3) Both individuals go to opposite ends of the area, start ■
back-to-back, and work toward each other. ■

(4) Go around the walls and proceed to the center of the ■
room. ■

(5) Mark an area or room that has been searched with ■
“OK,” “Safe,” or “Search Completed.” ■

(6) Use common sense or logic when searching. ■
(**EXAMPLE:** If a caller has threatened to blow up the lunch room, search the lunch ■
room first rather than office space.) ■

c. **Unapproved Procedure.** If the IIC or supervisor does not ■
approve the search and evacuate procedure or determines that the search team ■
training is inadequate, FSIS employees are to evacuate when a bomb threat occurs. ■

C. **Re-entry into the Establishment.** Do not re-enter after an evacuation ■
UNTIL the IIC or supervisor declares the building safe for re-entry. ■

D. **Repeated Bomb Threats.** The IIC or supervisor notifies the district office and the workplace safety and health official of repeated bomb threats. ■

XIV. **FIRE EMERGENCY PROCEDURES**

A. **General.** FSIS policy is to evacuate immediately when there is a fire. Therefore, employees are not trained or equipped to fight structural fires or perform rescue operations.

B. **Fire Extinguishers.** Employees should be familiar with fire extinguishers for specific types of fires. The labels on the extinguishers provide this information. Since it is FSIS policy to evacuate immediately in the event of a fire, training in use of fire extinguisher is not required. Use an extinguisher only if the fire is limited in size and exit routes are clear. Contact the fire department **before** using an extinguisher, if feasible. ■

C. **Hotels and Motels.** Follow the procedures below when staying in a hotel or motel:

1. At check-in, ask the clerk what type of fire alarm the hotel/motel uses. If adequacy is doubtful, request a first floor room or a room as near the first floor as possible.

2. Check the fire evacuation plan posted in your room.

3. Find the two exits nearest your room and make sure they are not locked or blocked. Count the number of doors from your room to the exits. This will help if the corridor is unlighted or filled with smoke.

4. If fire is in your room, leave the room and close the door. Report fire to the fire department and front desk.

5. If fire is not in the room, but is somewhere else in the hotel/motel, leave if possible. Feel the door to determine if it is:

a. **Cool.** Open the door slowly and go to the nearest exit. Crawl near the floor if the corridor is filled with smoke, and take the room key. The key will be needed if smoke or fire blocks exits.

b. **Hot.** Do not open the door. Fill the bathtub with water to soak towels or sheets. Use wet towels or sheets to seal cracks around the door. Turn off air conditioners and fans. Call for help and give exact location. Do not break windows except as a last resort. Smoke can enter the room from outside the windows.

6. Do not smoke in bed.

7. Take every alarm or unusual noise seriously.

8. Do not use the elevator when there is a fire.

9. Jumping from a window or ledge should be weighed carefully. A person is unlikely to survive a fall higher than the third floor.

10. Remember that few people are burned to death in fires. Most die from smoke and poisonous gases.

XV. EMERGENCIES WHILE OPERATING A VEHICLE

A. **Employees.** If an emergency occurs while operating a vehicle, notify the supervisor of your location, whether or not you are injured, the extent of your injury, and any damage to the vehicle. Use these procedures in the following emergencies:

1. **Earthquake.** Pull to the side of the road and stop. Stay in the vehicle until the danger ends. Avoid parking under overpasses or power lines. If damage is severe, do not cross bridges or overpasses.

2. **Tornado.** Pull to the side of the road and stop. Get out of the vehicle immediately. Seek shelter away from the vehicle in a ditch or any spot low to the ground. Avoid trees and utility poles. Protect your head.

3. **Flash Flood.** Go to high ground quickly. Do not drive across flooded roads. Take an alternate route if roads are flooded.

4. **Winter Storm.** Prepare for winter driving with winter vehicle maintenance, giving special attention to the battery, tires, and windshield wiper blades. Do not drive during storms with a near empty gas tank. Use extra caution while driving in snow or icy conditions. If you get stuck in a winter storm, it is usually safer to stay in the vehicle than to attempt to walk to another location.

B. **Managers, Supervisors, and IIC's.** Attempt to notify coworkers and subordinates who are in a travel status (**EXAMPLE:** operating a vehicle) of all emergencies and catastrophes. ■
■
■

XVI. TRAINING

A. **OEP.** The IIC or supervisor is responsible for training employees. (See Attachment 3.) Document and keep records of all training. Provide training when:

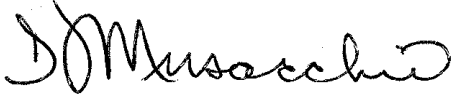
1. The plan is first developed.

2. New employees are hired. Brief all relief replacement and visitors not familiar with the worksite on the evacuation procedures.

3. New equipment, materials, or processes are introduced.

4. Plan procedures are updated or changed.
5. Plant management provides training for plant employees, if feasible.

B. **Second Shift Personnel.** The IIC and the circuit supervisor will determine and implement the most feasible method of training second shift personnel. ■



for Deputy Administrator
Office of Management

Attachment

- 1 FSIS Occupant Emergency Plan
- 2 OSHA's Means of Egress Standard
- 3 Workplace Emergency Procedures Training

FSIS OCCUPANT EMERGENCY PLAN <i>(This form is provided as a suggested guide for inspection workplaces)</i>			DATE
AGENCY		ADDRESS	
ESTABLISHMENT			
FSIS OFFICIAL-IN-CHARGE (Coordinator)	TELEPHONE	ESTABLISHMENT OWNER / MANAGER	TELEPHONE
EMERGENCY ORGANIZATION INFORMATION <i>(Alternate Coordinator, Wardens, First Aiders)</i>			
NAME	DUTY	NAME	DUTY
1.		4.	
2.		5.	
3.		6.	
EMERGENCY PLAN GUIDANCE			
Know Evacuation Routes.		Know the Plan of Action.	
LOCATION OF EMERGENCY TELEPHONE NUMBERS FOR FIRE, POLICE AND MEDICAL ASSISTANCE			
FIRE OR SMOKE		BOMB THREAT	
1. Sound Building Alarm 2. Call Fire Department 3. Notify Coordinator 4. Notify Establishment Owner 5. Close Windows and Doors in Government Office 6. Evacuate Building		1. Notify Coordinator 2. Establishment Search and Evacuation Procedure: <input type="checkbox"/> Yes <input type="checkbox"/> No 3. If Suspicious Object is Found: a. Do Not Disturb b. Notify Bomb Squad c. Notify Establishment Owner d. Evacuate Building	
EVACUATION ASSEMBLY POINT		ALTERNATE FSIS COMMAND SITE	
PERSONS AUTHORIZED TO ORDER EVACUATION <i>(Other than fire, explosion or bomb device)</i>		EVACUATION SIGNALS	
1. Coordinator 2. Alternate Coordinator 3. Establishment Owner		FIRE	EXPLOSION OR GAS LEAK
			SUSPICIOUS OBJECT
OTHER EMERGENCIES			

**OCCUPATIONAL SAFETY AND HEALTH STANDARDS
SUBPART E - MEANS OF EGRESS**

(29 CFR 1910, Subpart E; 39 FR 23502, June 27, 1974; Amended by 45 FR 60703, Sept. 12, 1980; 51 FR 24525, July 7, 1986; 53 FR 12121, April 12, 1988; 58 FR 35308, June 30, 1993; 61 FR 9235, March 7, 1996)

**TITLE 29 - LABOR
Subtitle B - Regulations Relating to Labor**

**Chapter XVII - Occupational Safety and Health Administration, Department of
Labor**

PART 1910 - OCCUPATIONAL SAFETY AND HEALTH

Authority: Sections 4, 6, and 8, of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), or 1-90 (55 FR 9033), as applicable.

Sections 1910.35, 1910.37, 1910.38 and 1910.40 are also issued under 29 CFR Part 1911.

[Authority citation added by 51 FR 24525, July 7, 1986; revised by 53 FR 12121, April 12, 1988; 58 FR 35308, June 30, 1993]

- 1910.35 Definitions.
 - 1910.36 General requirements.
 - 1910.37 Means of egress, general.
 - 1910.38 Employee emergency plans and fire prevention plans.
 - 1910.39 [Reserved]
 - 1910.40 [Reserved]
- Appendix to Subpart E -Means of Egress

Subpart E -Means of Egress

1910.35 Definitions

As used in this subpart.

(a) *Means of egress.* A means of egress is a continuous and unobstructed way of exit travel from any point in a building or structure to a public way and consists of three separate and distinct parts: the way of exit access, the exit, and the way of exit discharge. A means of egress comprises the vertical and horizontal ways of travel and shall include intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts, and yards.

(b) *Exit access.* Exit access is that portion of a means of egress which leads to an entrance to an exit.

(c) *Exit.* Exit is that portion of a means of egress which is separated from all other spaces of the building or structure by construction or equipment as required in this subpart to provide a protected way of travel to the exit discharge.

(d) *Exit discharge.* Exit discharge is that portion of a means of egress between the termination of an exit and a public way.

(e) *Low hazard contents.* Low hazard contents shall be classified as those of such low combustibility that no self-propagating fire therein can occur and that consequently the only probable danger requiring the use of emergency exits will be from panic, fumes, or smoke, or fire from some external source.

(f) *High-hazard contents.* High-hazard contents shall be classified as those which are liable to burn with extreme rapidity or from which poisonous fumes or explosions are to be feared in the event of fire.

(g) *Ordinary hazard contents.* Ordinary hazard contents shall be classified as those which are liable to burn with moderate rapidity and to give off a considerable volume of smoke but from which neither poisonous fumes nor explosions are to be feared in case of fire.

(h) *Approved.* For the purposes of this subpart approved shall mean listed or approved equipment by a nationally recognized testing laboratory. Refer to 1910.155(c)(3)(iv)(A) for definition of listed, and 1910.7 for nationally recognized testing laboratory.

(i) "Emergency action plan" means a plan for a workplace, or parts thereof, describing what procedures the employer and employees must take to ensure employee safety from fire or other emergencies.

(j) "Emergency escape route" means the route that employees are directed to follow in the event they are required to evacuate the workplace or seek a designated refuge area.

[39 FR 23502, June 27, 1974, as amended at 45 FR 60703, Sept. 12, 1980; 53 FR 12121, Apr. 12, 1988]

1910.36 General requirements

(a) *Application.* This subpart contains general fundamental requirements essential to providing a safe means of egress from fire and like emergencies. Nothing in this subpart shall be construed to prohibit a better type of building construction, more exits, or otherwise safer conditions than the minimum requirements specified in this subpart. Exits from vehicles, vessels, or other mobile structures are not covered by this subpart.

(b) *Fundamental requirements.*

(b)(1) Every building or structure, new or old, designed for human occupancy shall be provided with exits sufficient to permit the prompt escape of occupants in case of fire or other emergency. The design of exits and other safeguards shall be such that reliance for safety to life in case of fire or other emergency will not depend solely on any single safeguard; additional safeguards shall be provided for life safety in case any single safeguard is ineffective due to some human or mechanical failure.

(b)(2) Every building or structure shall be so constructed, arranged, equipped, maintained, and operated as to avoid undue danger to the lives and safety of its occupants from fire, smoke, fumes, or resulting panic during the period of time reasonably necessary for escape from the building or structure in case of fire or other emergency.

(b)(3) Every building or structure shall be provided with exits of kinds, numbers, location, and capacity appropriate to the individual building or structure, with due regard to the character of the occupancy, the number of persons exposed, the fire protection available, and the height and type of construction of the building or structure, to afford all occupants convenient facilities for escape.

(b)(4) In every building or structure exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of the building or structure at all times when it is occupied. No lock or fastening to prevent free escape from the inside of any building shall be installed except in mental, penal, or corrective institutions where supervisory personnel is continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.

(b)(5) Every exit shall be clearly visible or the route to reach it shall be conspicuously indicated in such a manner that every occupant of every building or structure who is physically and mentally capable will readily know the direction of escape from any point, and each path of escape, in its entirety, shall be so arranged or marked that the way to a place of safety outside is unmistakable. Any doorway or passageway not constituting an exit or way to reach an exit, but of such a character as to be subject to being mistaken for an exit, shall be so arranged or marked as to minimize its possible confusion with an exit and the resultant danger of persons endeavoring to escape from fire finding themselves trapped in a dead-end space, such as a cellar or storeroom, from which there is no other way out.

(b)(6) In every building or structure equipped for artificial illumination, adequate and reliable illumination shall be provided for all exit facilities.

(b)(7) In every building or structure of such size, arrangement, or occupancy that a fire may not itself provide adequate warning to occupants, fire alarm facilities shall be provided where necessary to warn occupants of the existence of fire so that they may escape, or to facilitate the orderly conduct of fire exit drills.

(b)(8) Every building or structure, section, or area thereof of such size, occupancy, and arrangement that the reasonable safety of numbers of occupants may be endangered by the blocking of any single means of egress due to fire or smoke, shall have at least two means of egress remote from each other, so arranged as to minimize any possibility that both may be blocked by any one fire or other emergency conditions.

(b)(9) Compliance with this subpart shall not be construed as eliminating or reducing the necessity for other provisions for safety of persons using a structure under normal occupancy conditions, nor shall any provision of the subpart be construed as requiring or permitting any condition that may be hazardous under normal occupancy conditions.

(c) *Protection of employees exposed by construction and repair operations.*

(c)(1) No building or structure under construction shall be occupied in whole or in part until all exit facilities required for the part occupied are completed and ready for use.

(c)(2) No existing building shall be occupied during repairs or alterations unless all existing exits and any existing fire protection are continuously maintained, or in lieu thereof other measures are taken which provide equivalent safety.

(c)(3) No flammable or explosive substances or equipment for repairs or alterations shall be introduced in a building of normally low or ordinary hazard classification while the building is occupied, unless the condition of use and safeguards provided are such as not to create any additional danger or handicap to egress beyond the normally permissible conditions in the building.

(d) *Maintenance.*

(d)(1) Every required exit, way of approach thereto, and way of travel from the exit into the street or open space, shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

(d)(2) Every automatic sprinkler system, fire detection and alarm system, exit lighting, fire door, and other item of equipment, where provided, shall be continuously in proper operating condition.

1910.37 Means of egress; general

(a) *Permissible exit components.* An exit shall consist only of the approved components. Exit components shall be constructed as an integral part of the building or shall be permanently affixed thereto.

(b) *Protective enclosure of exits.* When an exit is protected by separation from other parts of the building the separating construction shall meet the following requirements.

(b)(1) The separation shall have at least a 1-hour fire resistance rating when the exit connects three stories or less. This applies whether the stories connected are above or below the story at which exit discharge begins.

(b)(2) The separation shall have at least a 2-hour fire resistance rating when the exit connects four or more stories, whether above or below the floor of discharge. It shall be constructed of noncombustible materials, and shall be supported by construction having at least a 2-hour fire resistance rating.

(b)(3) Any opening therein shall be protected by an approved self-closing fire door.

(b)(4) Openings in exit enclosures shall be confined to those necessary for access to the enclosure from normally occupied spaces and for egress from the enclosure.

(c) *Width and capacity of means of egress.*

(c)(1) The capacity in number of persons per unit of exit width for approved components of means of egress shall be as follows:

(c)(1)(i) Level Egress Components (including Class A Ramps) 100 persons.

(c)(1)(ii) Inclined Egress Components (including Class B Ramps) 60 persons.

(c)(1)(iii) A ramp shall be designated as Class A or Class B in accordance with the following Table E-1:

TABLE E-1

	Class A	Class B
Width.....	44 inches and greater.	30 to 44 inches.
Slope.....	1 to 1-3/16 inches in 12 inches.	1-3/16 to 2 inches in 12 inches.
Maximum height between landings.	No limit.....	12 feet.

(c)(2) Means of egress shall be measured in units of exit width of 22 inches. Fractions of a unit shall not be counted, except that 12 inches added to one or more full units shall be counted as one-half a unit of exit width.

(c)(3) Units of exit width shall be measured in the clear at the narrowest point of the means of egress except that a handrail may project inside the measured width on each side not more than 5 inches and a stringer may project inside the measured width not more than 1 1/2 inches. An exit or exit access door swinging into an aisle or passageway shall not restrict the effective width thereof at any point during its swing to less than the minimum widths hereafter specified.

(d) *Egress capacity and occupant load.*

(d)(1) The capacity of means of egress for any floor, balcony, tier, or other occupied space shall be sufficient for the occupant load thereof. The occupant load shall be the maximum number of persons that may be in the space at any time.

(d)(2) Where exits serve more than one floor, only the occupant load of each floor considered individually need be used in computing the capacity of the exits at that floor, provided that exit capacity shall not be decreased in the direction of exit travel.

(e) *Arrangement of exits.* When more than one exit is required from a story, at least two of the exits shall be remote from each other and so arranged as to minimize any possibility that both may be blocked by any one fire or other emergency condition.

(f) *Access to exits.*

(f)(1) Exits shall be so located and exit access shall be so arranged that exits are readily accessible at all times. Where exits are not immediately accessible from an open floor area, safe and continuous passageways, aisles, or corridors leading directly to every exit and so arranged as to provide convenient access for each occupant to at least two exits by separate ways of travel, except as a single exit or limited dead ends are permitted by other provisions of this subpart, shall be maintained.

(f)(2) A door from a room to an exit or to a way of exit access shall be of the side-hinged, swinging type. It shall swing with exit travel when the room is occupied by more than 50 persons or used for a high hazard occupancy.

(f)(3) In no case shall access to an exit be through a bathroom, or other room subject to locking, except where the exit is required to serve only the room subject to locking.

(f)(4) Ways of exit access and the doors to exits to which they lead shall be so designed and arranged as to be clearly recognizable as such. Hangings or draperies shall not be placed over exit doors or otherwise so located as to conceal or obscure any exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of exit.

(f)(5) Exit access shall be so arranged that it will not be necessary to travel toward any area of high hazard occupancy in order to reach the nearest exit, unless the path of travel is effectively shielded from the high hazard location by suitable partitions or other physical barriers.

(f)(6) The minimum width of any way of exit access shall in no case be less than 28 inches. Where a single way of exit access leads to an exit, its capacity in terms of width shall be at least equal to the required capacity of the exit to which it leads. Where more than one way of exit access leads to an exit, each shall have a width adequate for the number of persons it must accommodate.

(g) *Exterior ways of exit access.*

(g)(1) Access to an exit may be by means of any exterior balcony, porch, gallery, or roof that conforms to the requirements of this section.

(g)(2) Exterior ways of exit access shall have smooth; solid floors, substantially level, and shall have guards on the unenclosed sides.

(g)(3) Where accumulation of snow or ice is likely because of the climate, the exterior way of exit access shall be protected by a roof, unless it serves as the sole normal means of access to the rooms or spaces served, in which case it may be assumed that snow and ice will be regularly removed in the course of normal occupancy.

(g)(4) A permanent, reasonably straight path of travel shall be maintained over the required exterior way of exit access. There shall be no obstruction by railings, barriers, or gates that divide the open space into sections appurtenant to individual rooms, apartments, or other uses. Where the Assistant Secretary of Labor or his duly authorized representative finds the required path of travel to be obstructed by furniture or other movable objects, he may require that they be fastened out of the way or he may require that railings or other permanent barriers be installed to protect the path of travel against encroachment.

(g)(5) An exterior way of exit access shall be so arranged that there are no dead ends in excess of 20 feet. Any unenclosed exit served by an exterior way of exit access shall be so located that no part of the exit extends past a vertical plane 20 feet and one-half the required width of the exit from the end of and at right angles to the way of exit access.

(g)(6) Any gallery, balcony, bridge, porch, or other exterior exit access that projects beyond the outside wall of the building shall comply with the requirements of this section as to width and arrangement.

(h) *Discharge from exits.*

(h)(1) 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. The streets to which the exits discharge shall be of width adequate to accommodate all persons leaving the building. Yards, courts, or other open spaces to which exits discharge shall also be of adequate width and size to provide all persons leaving the building with ready access to the street.

(h)(2) Stairs and other exits shall be so arranged as to make clear the direction of egress to the street. Exit stairs that continue beyond the floor of discharge shall be interrupted at the floor of discharge by partitions, doors, or other effective means.

(i) *Headroom.* Means of egress shall be so designed and maintained as to provide adequate headroom, but in no case shall the ceiling height be less than 7 feet 6 inches nor any projection from the ceiling be less than 6 feet 8 inches from the floor.

(j) *Changes in elevation.* Where a means of egress is not substantially level, such differences in elevation shall be negotiated by stairs or ramps.

(k) *Maintenance and workmanship.*

(k)(1) Doors, stairs, ramps, passages, signs, and all other components of means of egress shall be of substantial, reliable construction and shall be built or installed in a workmanlike manner.

(k)(2) Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of fire or other emergency.

(k)(3) Any device or alarm installed to restrict the improper use of an exit shall be so designed and installed that it cannot, even in cases of failure, impede or prevent emergency use of such exit.

(l) *Furnishings and decorations.*

(l)(1) No furnishings, decorations, or other objects shall be so placed as to obstruct exits, access thereto, egress therefrom, or visibility thereof.

(l)(2) No furnishings or decorations of an explosive or highly flammable character shall be used in any occupancy.

(m) *Automatic sprinkler systems.* All automatic sprinkler systems shall be continuously maintained in reliable operating condition at all times, and such periodic inspections and tests shall be made as are necessary to assure proper maintenance.

(n) *Fire alarm signaling systems.* The employer shall assure that fire alarm signaling systems are maintained and tested in accordance with the requirements of 1910.165(d).

(o) *Fire retardant paints.* Fire retardant paints or solutions shall be renewed at such intervals as necessary to maintain the necessary flame retardant properties.

(p) [Reserved]

(q) *Exit marking.*

(q)(1) Exits shall be marked by a readily visible sign. Access to exits shall be marked by readily visible signs in all cases where the exit or way to reach it is not immediately visible to the occupants.

(q)(2) Any door, passage, or stairway which is neither an exit nor a way of exit access, and which is so located or arranged as to be likely to be mistaken for an exit, shall be identified by a sign reading "Not an Exit" or similar designation, or shall be identified by a sign indicating its actual character, such as "To Basement," "Storeroom," "Linen Closet," or the like.

(q)(3) Every required sign designating an exit or way of exit access 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, nor shall there be any brightly illuminated sign (for other than exit purposes), display, or object in or near the line of vision to the required exit sign of such a character as to so detract attention from the exit sign that it may not be noticed.

(q)(4) Every exit sign shall be distinctive in color and shall provide contrast with decorations, interior finish, or other signs.

(q)(5) A sign reading "Exit," or similar designation, with an arrow indicating the directions, shall be placed in every location where the direction of travel to reach the nearest exit is not immediately apparent.

(q)(6) Every exit sign shall be suitably illuminated by a reliable light source giving a value of not less than 5 foot-candles on the illuminated surface. Artificial lights giving illumination to exit signs other than the internally illuminated types shall have screens, discs, or lenses of not less than 25 square inches area made of translucent material to show red or other specified designating color on the side of the approach.

(q)(7) Each internally illuminated exit sign shall be provided in all occupancies where reduction of normal illumination is permitted.

(q)(8) Every exit sign shall have the word "Exit" in plainly legible letters not less than 6 inches high, with the principal strokes of letters not less than three-fourths-inch wide.

1910.38 Employee emergency plans and fire prevention plans

(a) *Emergency action plan.*

(a)(1) Scope and application. This paragraph (a) applies to all emergency action plans required by a particular OSHA standard. The emergency action plan shall be in writing (except as provided in the last sentence of paragraph (a)(5)(iii) of this section) and shall cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.

(a)(2) Elements. The following elements, at a minimum, shall be included in the plan:

(a)(2)(i) Emergency escape procedures and emergency escape route assignments;

(a)(2)(ii) Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;

(a)(2)(iii) Procedures to account for all employees after emergency evacuation has been completed;

(a)(2)(iv) Rescue and medical duties for those employees who are to perform them;

(a)(2)(v) The preferred means of reporting fires and other emergencies; and

(a)(2)(vi) Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

(a)(3) Alarm system.

(a)(3)(i) The employer shall establish an employee alarm system which complies with 1910.165.

(a)(3)(ii) If the employee alarm system is used for alerting fire brigade members, or for other purposes, a distinctive signal for each purpose shall be used.

(a)(4) Evacuation. The employer shall establish in the emergency action plan the types of evacuation to be used in emergency circumstances.

(a)(5) Training.

(a)(5)(i) Before implementing the emergency action plan, the employer shall designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

(a)(5)(ii) The employer shall review the plan with each employee covered by the plan at the following times:

(a)(5)(ii)(A) Initially when the plan is developed;

(a)(5)(ii)(B) Whenever the employee's responsibilities or designated actions under the plan change; and

(a)(5)(ii)(C) Whenever the plan is changed.

(a)(5)(iii) The employer shall review with each employee upon initial assignment those parts of the plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept at the workplace and made available for employee review. For those employers with 10 or fewer employees the plan may be communicated orally to employees and the employer need not maintain a written plan.

(b) *Fire prevention plan.*

(b)(1) Scope and application. This paragraph (b) applies to all fire prevention plans required by a particular OSHA standard. The fire prevention plan shall be in writing, except as provided in the last sentence of paragraph (b)(4)(ii) of this section.

(b)(2) Elements. The following elements, at a minimum, shall be included in the fire prevention plan:

(b)(2)(i) A list of the major workplace fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems which can control a fire involving them;

(b)(2)(ii) Names or regular job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions or fires; and

(b)(2)(iii) Names or regular job titles of those personnel responsible for control of fuel source hazards.

(b)(3) Housekeeping. The employer shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.

(b)(4) Training.

(b)(4)(i) The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.

(b)(4)(ii) The employer shall review with each employee upon initial assignment those parts of the fire prevention plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept in the workplace and made available for employee review. For those employers with 10 or fewer employees, the plan may be communicated orally to employees and the employer need not maintain a written plan.

(b)(5) Maintenance. The employer shall regularly and properly maintain, according to established procedures, equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.

[45 FR 60703, Sept. 12, 1980]

Appendix to Subpart E--Means of Egress

This appendix serves as a nonmandatory guideline to assist employers in complying with the appropriate requirements of subpart E.

1910.38 Employee emergency plans

1. Emergency action plan elements. The emergency action plan should address emergencies that the employer may reasonably expect in the workplace. Examples are: fire; toxic chemical releases; hurricanes; tornadoes; blizzards; floods; and others. The elements of the emergency action plan presented in paragraph 1910.38(a)(2) can be supplemented by the following to more effectively achieve employee safety and health in an emergency. The employer should list in detail the procedures to be taken by those employees who have been selected to remain behind to care for essential plant operations until their evacuation becomes absolutely necessary. Essential plant operations may include the monitoring of plant power supplies, water supplies, and other essential services which cannot be shut down for every emergency alarm. Essential plant operations may also include chemical or manufacturing processes which must be shut down in stages or steps where certain employees must be present to assure that safe shut down procedures are completed.

The use of floor plans or workplace maps which clearly show the emergency escape routes should be included in the emergency action plan. Color coding will aid employees in determining their route assignments.

The employer should also develop and explain in detail what rescue and medical first aid duties are to be performed and by whom. All employees are to be told what actions they are to take in these emergency situations that the employer anticipates may occur in the workplace.

2. Emergency evacuation. At the time of an emergency, employees should know what type of evacuation is necessary and what their role is in carrying out the plan. In some cases where the emergency is very grave, total and immediate evacuation of all employees is necessary. In other emergencies, a partial evacuation of nonessential employees with a delayed evacuation of others may be necessary for continued plant operation. In some cases, only those employees in the immediate area of the fire may be expected to evacuate or move to a safe area such as when a local application fire suppression system discharge employee alarm is sounded. Employees must be sure that they know what is expected of them in all such emergency possibilities which have been planned in order to provide assurance of their safety from fire or other emergency.

The designation of refuge or safe areas for evacuation should be determined and identified in the plan. In a building divided into fire zones by fire walls, the refuge area may still be within the same building but in a different zone from where the emergency occurs.

Exterior refuge or safe areas may include parking lots, open fields or streets which are located away from the site of the emergency and which provide sufficient space to accommodate the employees. Employees should be instructed to move away from the exit discharge doors of the building, and to avoid congregating close to the building where they may hamper emergency operations.

3. Emergency action plan training. The employer should assure that an adequate number of employees are available at all times during working hours to act as evacuation wardens so that employees can be swiftly moved from the danger location to the safe areas. Generally, one warden for each twenty employees in the workplace should be able to provide adequate guidance and instruction at the time of a fire emergency. The employees selected or who volunteer to serve as wardens should be trained in the complete workplace layout and the various alternative escape routes from the workplace. All wardens and fellow employees should be made aware of handicapped employees who may need extra assistance, such as using the buddy system, and of hazardous areas to be avoided during emergencies. Before leaving, wardens should check rooms and other enclosed spaces in the workplace for employees who may be trapped or otherwise unable to evacuate the area.

After the desired degree of evacuation is completed, the wardens should be able to account for or otherwise verify that all employees are in the safe areas.

In buildings with several places of employment, employers are encouraged to coordinate their plans with the other employers in the building. A building-wide or standardized plan for the whole building is acceptable provided that the employers inform their respective employees of their duties and responsibilities under the plan. The standardized plan need not be kept by each employer in the multi-employer building, provided there is an accessible location within the building where the plan can be reviewed by affected employees. When multi-employer building-wide plans are not feasible, employers should coordinate their plans with the other employers within the building to assure that conflicts and confusion are avoided during times of emergencies. In multi-story buildings where more than one employer is on a single floor, it is essential that these employers coordinate their plans with each other to avoid conflicts and confusion.

4. Fire prevention housekeeping. The standard calls for the control of accumulations of flammable and combustible waste materials.

It is the intent of this standard to assure that hazardous accumulations of combustible waste materials are controlled so that a fast developing fire, rapid spread of toxic smoke, or an explosion will not occur. This does not necessarily mean that each room has to be swept each day. Employers and employees should be aware of the hazardous properties of materials in their workplaces, and the degree of hazard each poses. Certainly oil soaked rags have to be treated differently than general paper trash in office areas. However, large accumulations of waste paper or corrugated boxes, etc., can pose a significant fire hazard. Accumulations of materials which can cause large fires or generate dense smoke that are easily ignited or may start from spontaneous combustion, are the types of materials with which this standard is concerned. Such combustible materials may be easily ignited by matches, welder's sparks, cigarettes and similar low level energy ignition sources.

5. *Maintenance of equipment under the fire prevention plan.* Certain equipment is often installed in workplaces to control heat sources or to detect fuel leaks. An example is a temperature limit switch often found on deep-fat food fryers found in restaurants. There may be similar switches for high temperature dip tanks, or flame failure and flashback arrester devices on furnaces and similar heat producing equipment. If these devices are not properly maintained or if they become inoperative, a definite fire hazard exists. Again employees and supervisors should be aware of the specific type of control devices on equipment involved with combustible materials in the workplace and should make sure, through periodic inspection or testing, that these controls are operable. Manufacturers' recommendations should be followed to assure proper maintenance procedures.

[45 FR 60714, Sept. 12, 1980]

WORKPLACE EMERGENCY PROCEDURES TRAINING

The IIC or supervisor provides certain training and information to employees assigned to the plant. Provide this training when the plan is developed, when an employee's responsibilities under the plan change, and when the plan is changed. The IIC or supervisor provides employees with:

- A. The location of FSIS Form 4791-27, FSIS Occupant Emergency Plan.
- B. The location of the floor plan or map of escape and alternative escape routes.
- C. Procedures to account for all employees after an emergency evacuation is completed.
- D. The location of primary and alternate evacuation assembly points.
- E. The name of the warden and first aid duties for employees assigned to perform them.
- F. A preferred means to report fires and other emergencies.
- G. Training on the operation of alarm systems.
- H. Emergency procedures for bombs, bomb threats, and other explosive devices.