

1301:7-7-04

**Emergency planning and preparedness.****(A) Section 401 General**

(1) 401.1 Scope. Reporting of emergencies, coordination with emergency response forces, emergency plans, and procedures for managing or responding to emergencies shall comply with the provisions of this paragraph.

Exception: Firms that have approved on-premises fire-fighting organizations and that are in compliance with approved procedures for fire reporting.

(2) 401.2 Approval. Where required by this code, fire safety plans, emergency procedures, and employee training programs shall be approved by the fire code official.

(3) 401.3 Emergency forces notification. In the event an unwanted fire occurs on a property, the owner or occupant shall immediately report such condition to the fire department. Building employees and tenants shall implement the appropriate emergency plans and procedures. No person shall, by verbal or written directive, require any delay in the reporting of a fire to the fire department.

(a) 401.3.1 Making false report. It shall be unlawful for a person to give, signal, or transmit a false alarm.

(b) 401.3.2 Alarm activations. Upon activation of a fire alarm signal, employees or staff shall immediately notify the fire department.

(c) 401.3.3 Emergency evacuation drills. Nothing in this paragraph shall prohibit the sounding of a fire alarm signal for the carrying out of an emergency evacuation drill in accordance with the provisions of paragraph (E)(405) of this rule.

(4) 401.4 Interference with fire department operations. It shall be unlawful to interfere with, attempt to interfere with, conspire to interfere with, obstruct or restrict the mobility of or block the path of travel of a fire department emergency vehicle in any way, or to interfere with, attempt to interfere with, conspire to interfere with, obstruct or hamper any fire department operation.

(5) 401.5 Security device. Any security device or system that emits any medium that could obscure a means of egress in any building, structure or premise shall be prohibited.

**(B) Section 402 Definitions**

(1) 402.1 Definition. The following word and term shall, for the purposes of this rule and as used elsewhere in this code, have the meaning shown herein.

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"Emergency evacuation drill." An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency evacuation procedures.

(C) Section 403 Public assemblages and events

(1) 403.1 General. When, in the opinion of the fire code official, it is essential for public safety in a place of assembly or any other place where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest or activity, the owner, agent or lessee shall provide one or more fire watch personnel, as required and approved, to remain on duty during the times such places are open to the public, or when such activity is being conducted. The fire watch personnel shall keep diligent watch for fires, obstructions to means of egress and other hazards during the time such place is open to the public or such activity is being conducted and take prompt measures for remediation of hazards, extinguishment of fires that occur and assist in the evacuation of the public from the structures.

(a) 403.1.1 Public safety plan. In other than Group A or E occupancies, where the fire code official determines that an indoor or outdoor gathering of persons has an adverse impact on public safety through diminished access to buildings, structures, fire hydrants and fire apparatus access roads or where such gatherings adversely affect public safety services of any kind, the fire code official shall have the authority to order the development of, or prescribe a plan for, the provision of an approved level of public safety.

(b) 403.1.2 Contents. The public safety plan, where required by paragraph (C)(1)(a)(403.1.1) of this rule, shall address such items as emergency vehicle ingress and egress, fire protection, emergency medical services, public assembly areas and the directing of both attendees and vehicles (including the parking of vehicles), vendor and food concession distribution, and the need for the presence of law enforcement, and fire and emergency medical services personnel at the event.

(D) Section 404 Fire safety and evacuation plans

(1) 404.1 General. Fire safety and evacuation plans shall comply with the requirements of this paragraph.

(2) 404.2 Where required. An approved fire safety and evacuation plan shall be prepared and maintained for the following occupancies and buildings.

(a) Group A, other than Group A occupancies used exclusively for purposes of religious worship that have an occupant load less than 2,000.

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- (b) Group E.
  - (c) Group H.
  - (d) Group I.
  - (e) Group R-1.
  - (f) Group R-4.
  - (g) High-rise buildings.
  - (h) Group M buildings having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge.
  - (i) Covered malls exceeding 50,000 square feet (4645 m<sup>2</sup>) in aggregate floor area.
  - (j) Underground buildings.
  - (k) Buildings with an atrium and having an occupancy in Group A, E or M.
- (3) 404.3 Contents. Fire safety and evacuation plan contents shall be in accordance with paragraphs (D)(3)(a)(404.3.1) and (D)(3)(b)(404.3.2) of this rule.
- (a) 404.3.1 Fire evacuation plans. Fire evacuation plans shall include the following:
- (i) Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
  - (ii) Procedures for employees who must remain to operate critical equipment before evacuating.
  - (iii) Procedures for accounting for employees and occupants after evacuation has been completed.
  - (iv) Identification and assignment of personnel responsible for rescue or emergency medical aid.
  - (v) The preferred and any alternative means of notifying occupants of a fire or emergency.
  - (vi) The preferred and any alternative means of reporting fires and other

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emergencies to the fire department or designated emergency response organization.

(vii) Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.

(viii) A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages, where provided.

(b) 404.3.2 Fire safety plans. Fire safety plans shall include the following:

(i) The procedure for reporting a fire or other emergency.

(ii) The life safety strategy and procedures for notifying, relocating, or evacuating occupants.

(iii) Site plans indicating the following:

(a) The occupancy assembly point.

(b) The locations of fire hydrants.

(c) The normal routes of fire department vehicle access.

(iv) Floor plans identifying the locations of the following:

(a) Exits.

(b) Primary evacuation routes.

(c) Secondary evacuation routes.

(d) Accessible egress routes.

(e) Areas of refuge.

(f) Manual fire alarm boxes.

(g) Portable fire extinguishers.

(h) Occupant-use hose stations.

(i) Fire alarm annunciators and controls.

(v) A list of major fire hazards associated with the normal use and occupancy of the premises, including maintenance and housekeeping procedures.

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- (vi) Identification and assignment of personnel responsible for maintenance of systems and equipment installed to prevent or control fires.
  - (vii) Identification and assignment of personnel responsible for maintenance, housekeeping and controlling fuel hazard sources.
- (4) 404.4 Maintenance. Fire safety and evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy, or the physical arrangement of the building.
- (5) 404.5 Availability. Fire safety and evacuation plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review upon request.

(E) Section 405 Emergency evacuation drills

- (1) 405.1 General. Emergency evacuation drills complying with the provisions of this paragraph shall be conducted in the occupancies listed in paragraphs (D)(2)(404.2) and (E)(1)(a)(405.1.1) of this rule or when required by the fire code official. Drills shall be designed in cooperation with the local authorities.
- (a) 405.1.1 A principal or person in charge of a public or private school or educational institution having an average daily attendance of fifty or more pupils, and a person in charge of any children's home or orphanage housing twenty or more minor persons, shall instruct an train such children by means of drills or rapid dismissals at least once a month while such school, institution, or children's home is in operation, so that such children in a sudden emergency may leave the building in the shortest possible time without confusion in compliance with section 3737.73 of the Revised Code and this rule.
- (i) 405.1.1.1 Records. Every October and April, the person responsible for conducting fire drills pursuant to section 3737.73 of the Revised Code shall file a copy of the fire drill records containing the information required under paragraph (E)(5)(405.5) of this rule with the firefighting agency having jurisdiction that conducts inspections of the subject facility.
  - (ii) 405.1.1.2 Intent to conduct inspections. All duly constituted fire departments of a political subdivision of this state that conducts inspections of schools, educational institutions or children's homes subject to section 3737.73 of the Revised Code shall annually file a written notice with the fire marshal of the department's intent to conduct such inspections.

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(iii) 405.1.1.3 Jurisdiction. For the purpose of this paragraph, the fire agency having jurisdiction shall be the fire marshal or any such duly constituted fire department of a political subdivision having filed the written notice of intent to conduct inspections in accordance with this paragraph.

(iv) 405.1.1.4 Inspection verification. The responsible person for each facility subject to section 3737.73 of the Revised Code shall provide written notice to the fire marshal if the fire agency having jurisdiction fails to conduct an annual fire inspection of the subject facility.

(2) 405.2 Frequency. Required emergency evacuation drills shall be held at the intervals specified in Table 405.2 of this rule or more frequently where necessary to familiarize all occupants with the drill procedure.

Table 405.2 Fire and evacuation drill frequency and participation

<u>Group or occupancy</u>	<u>Frequency</u>	<u>Participation</u>
<u>Group A</u>	<u>Quarterly</u>	<u>Employees</u>
<u>Group E</u>	<u>Monthly<sup>a</sup></u>	<u>All occupants</u>
<u>Group I</u>	<u>Quarterly on each shift</u>	<u>Employees<sup>b</sup></u>
<u>Group R-1</u>	<u>Quarterly on each shift</u>	<u>Employees</u>
<u>Group R-4</u>	<u>Quarterly on each shift</u>	<u>Employees<sup>b</sup></u>

a. The frequency shall be allowed to be modified in accordance with paragraph (H)(3)(b)(408.3.2) of this rule.

b. Fire and evacuation drills in residential care assisted living facilities shall include complete evacuation of the premises in accordance with paragraph (H)(10)(e)(408.10.5) of this rule. Where occupants receive habilitation or rehabilitation training, fire prevention and fire safety practices shall be included as part of the training program.

(3) 405.3 Leadership. Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.

(4) 405.4 Time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

(5) 405.5 Record keeping. Records shall be maintained of required emergency

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evacuation drills and include the following information:

- (a) Identity of the person conducting the drill.
  - (b) Date and time of the drill.
  - (c) Notification method used.
  - (d) Staff members on duty and participating.
  - (e) Number of occupants evacuated.
  - (f) Special conditions simulated.
  - (g) Problems encountered.
  - (h) Weather conditions when occupants were evacuated.
  - (i) Time required to accomplish complete evacuation.
- (6) 405.6 Notification. Where required by the fire code official, prior notification of emergency evacuation drills shall be given to the fire code official.
- (7) 405.7 Initiation. Where a fire alarm system is provided, emergency evacuation drills shall be initiated by activating the fire alarm system.
- (8) 405.8 Accountability. As building occupants arrive at the assembly point, efforts shall be made to determine if all occupants have been successfully evacuated or have been accounted for.
- (9) 405.9 Recall and reentry. An electrically or mechanically operated signal used to recall occupants after an evacuation shall be separate and distinct from the signal used to initiate the evacuation. The recall signal initiation means shall be manually operated and under the control of the person in charge of the premises or the official in charge of the incident. No one shall reenter the premises until authorized to do so by the official in charge.

(F) Section 406 Employee training and response procedures

- (1) 406.1 General. Employees in the occupancies listed in paragraph (D)(2)(404.2) of this rule shall be trained in the fire emergency procedures described in their fire evacuation and fire safety plans. Training shall be based on these plans and as described in paragraph (D)(3)(404.3) of this rule.
- (2) 406.2 Frequency. Employees shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the

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fire code official upon request.

(3) 406.3 Employee training program. Employees shall be trained in fire prevention evacuation and fire safety in accordance with paragraphs (F)(3)(a)(406.3.1) to (F)(3)(c)(406.3.3) of this rule.

(a) 406.3.1 Fire prevention training. Employees shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties.

(b) 406.3.2 Evacuation training. Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas, and procedures for evacuation.

(c) 406.3.3 Fire safety training. Employees assigned fire-fighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.

(G) Section 407 Hazard communication

(1) 407.1 General. The provisions of paragraphs (G)(2)(407.2) to (G)(7)(407.7) of this rule shall be applicable where hazardous materials subject to permits under paragraph (A)(5)(2701.5) of rule 1301:7-7-27 of the Administrative Code are located on the premises or where required by the fire code official.

(2) 407.2 Material Safety Data Sheets. Material Safety Data Sheets (MSDS) for all hazardous materials shall be readily available on the premises.

(3) 407.3 Identification. Individual containers of hazardous materials, cartons or packages shall be marked or labeled in accordance with applicable federal regulations. Buildings, rooms and spaces containing hazardous materials shall be identified by hazard warning signs in accordance with paragraph (C)(5)(2703.5) of rule 1301:7-7-27 of the Administrative Code.

(4) 407.4 Training. Persons responsible for the operation of areas in which hazardous materials are stored, dispensed, handled or used shall be familiar with the chemical nature of the materials and the appropriate mitigating actions necessary in the event of a fire, leak or spill. Responsible persons shall be designated and trained to be liaison personnel for the Fire Department. These persons shall aid the Fire Department in preplanning emergency responses and identification of the locations where hazardous materials are located, and shall have access to Material Safety Data Sheets and be knowledgeable in the site emergency response procedures.

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(5) 407.5 Hazardous materials inventory statement. Where required by the fire code official, each application for a permit shall include a Hazardous Materials Inventory Statement (HMIS) in accordance with paragraph (A)(5)(b)(2701.5.2) of rule 1301:7-7-27 of the Administrative Code.

(6) 407.6 Hazardous materials management plan. Where required by the fire code official, each application for a permit shall include a Hazardous Materials Management Plan (HMMP) in accordance with paragraph (A)(5)(a)(2701.5.1) of rule 1301:7-7-27 of the Administrative Code. The fire code official is authorized to accept a similar plan required by other regulations.

(7) 407.7 Facility closure plans. The permit holder or applicant shall submit to the fire code official a facility closure plan in accordance with paragraph (A)(6)(c)(2701.6.3) of rule 1301:7-7-27 of the Administrative Code to terminate storage, dispensing, handling or use of hazardous materials.

(H) Section 408 Use and occupancy-related requirements

(1) 408.1 General. In addition to the other requirements of this rule, the provisions of this paragraph are applicable to specific occupancies listed herein.

(2) 408.2 Group A occupancies. Group A occupancies shall comply with the requirements of paragraphs (H)(2)(a)(408.2.1) and (H)(2)(b)(408.2.2) of this rule and paragraphs (A)(401) to (F)(406) of this rule.

(a) 408.2.1 Seating plan. The fire safety and evacuation plans for assembly occupancies shall include the information required by paragraph (D)(3)(404.3) of this rule and a detailed seating plan, occupant load, and occupant load limit. Deviations from the approved plans shall be allowed provided the occupant load limit for the occupancy is not exceeded and the aisles and exit accessways remain unobstructed.

(b) 408.2.2 Announcements. In theaters, motion picture theaters, auditoriums and similar assembly occupancies in Group A used for noncontinuous programs, an audible announcement shall be made not more than 10 minutes prior to the start of each program to notify the occupants of the location of the exits to used in the event of a fire or other emergency.

Exception: In motion picture theaters, the announcement is allowed to be projected upon the screen in a manner approved by the fire code official.

(3) 408.3 Group E occupancies. Group E occupancies shall comply with the requirements of paragraphs (H)(3)(a)(408.3.1) to (H)(3)(d)(408.3.4) of this rule and paragraphs (A)(401) to (F)(406) of this rule.

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- (a) 408.3.1 First emergency evacuation drills. The first emergency evacuation drill of each school year shall be conducted within 10 days of the beginning of classes.
- (b) 408.3.2 Emergency evacuation drill deferral. Except as provided for in paragraph (E)(1)(a)(405.1.1) of this rule, in severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency specified in paragraph (E)(2)(405.2) of this rule.
- (c) 408.3.3 Time of day. Emergency evacuation drills shall be conducted at different hours of the day or evening, during the changing of classes, when the school is at assembly, during the recess or gymnastic periods, or during other times to avoid distinction between drills and actual fires.
- (d) 408.3.4 Assembly points. Outdoor assembly areas shall be designated and shall be located a safe distance from the building being evacuated so as to avoid interference with fire department operations. The assembly areas shall be arranged to keep each class separate to provide accountability of all individuals.
- (4) 408.4 Group H-5 occupancies. Group H-5 occupancies shall comply with the requirements of paragraphs (H)(4)(a)(408.4.1) to (H)(4)(d)(408.4.4) of this rule and paragraphs (A)(401) to (G)(407) of this rule.
- (a) 408.4.1 Plans and diagrams. In addition to the requirements of paragraph (D)(404) and paragraph (G)(6)(407.6) of this rule, plans and diagrams shall be maintained in approved locations indicating the approximate plan for each area, the amount and type of HPM stored, handled and used, locations of shutoff valves for HPM supply piping, emergency telephone locations and locations of exits.
- (b) 408.4.2 Plan updating. The plans and diagrams required by paragraph (H)(4)(a)(408.4.1) of this rule shall be maintained up to date and the fire code official and fire department shall be informed of all major changes.
- (c) 408.4.3 Emergency response team. Responsible persons shall be designated the on-site emergency response team and trained to be liaison personnel for the fire department. These persons shall aid the fire department in preplanning emergency responses, identifying locations where HPM is stored, handled and used, and be familiar with the chemical nature of such material. An adequate number of personnel for each work shift shall be designated.
- (d) 408.4.4 Emergency drills. Emergency drills of the on-site emergency

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response team shall be conducted on a regular basis but not less than once every three months. Records of drills conducted shall be maintained.

(5) 408.5 Group I-1 occupancies. Group I-1 occupancies shall comply with the requirements of paragraphs (H)(5)(a)(408.5.1) to (H)(5)(e)(408.5.5) of this rule and paragraphs (A)(401) to (F)(406) of this rule.

(a) 408.5.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by paragraph (D)(404) of this rule shall include special staff actions including fire protection procedures necessary for residents and shall be amended or revised upon admission of any resident with unusual needs.

(b) 408.5.2 Staff training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.

(c) 408.5.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

(d) 408.5.4 Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of paragraph (E)(4)(405.4) of this rule.

(e) 408.5.5 Resident participation. Emergency evacuation drills shall involve the actual evacuation of all residents to a selected assembly point.

(6) 408.6 Group I-2 occupancies. Group I-2 occupancies shall comply with the requirements of paragraphs (H)(6)(a)(408.6.1) and (H)(6)(b)(408.6.2) of this rule and paragraphs (A)(401) to (F)(406) of this rule. Drills are not required to comply with the time requirements of paragraph (E)(4)(405.4) of this rule.

(a) 408.6.1 Evacuation not required. During emergency evacuation drills, the movement of patients to safe areas or to the exterior of the building is not required.

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- (b) 408.6.2 Coded alarm signal. When emergency evacuation drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms.
- (7) 408.7 Group I-3 occupancies. Group I-3 occupancies shall comply with the requirements of paragraphs (H)(7)(a)(408.7.1) to (H)(7)(d)(408.7.4) of this rule and paragraphs (A)(401) to (F)(406) of this rule.
- (a) 408.7.1 Employee training. Employees shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment. Training of new staff shall be provided promptly upon entrance on duty. Refresher training shall be provided at least annually.
- (b) 408.7.2 Staffing. Group I-3 occupancies shall be provided with 24-hour staffing. Staff shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Use Conditions 3, 4 and 5, as defined in rule 1301:7-7-02 of the Administrative Code, the arrangement shall be such that the staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.
- Exception: Staff shall not be required to be within three floors or 300 feet (91 440 mm) in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the building code as listed in rule 1301:7-7-45 of the Administrative Code.
- (c) 408.7.3 Notification. Provisions shall be made for residents in Use Conditions 3, 4, and 5, as defined in rule 1301:7-7-02 of the Administrative Code, to readily notify staff of an emergency.
- (d) 408.7.4 Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.
- (8) 408.8 Group R-1 occupancies. Group R-1 occupancies shall comply with the requirements of paragraphs (H)(8)(a)(408.8.1) to (H)(8)(c)(408.8.3) of this rule and paragraphs (A)(401) to (F)(406) of this rule.
- (a) 408.8.1 Evacuation diagrams. A diagram depicting two evacuation routes shall be posted on or immediately adjacent to every required egress door from each hotel, motel or dormitory guestroom.
- (b) 408.8.2 Emergency duties. Upon discovery of a fire or suspected fire, hotel, motel and dormitory employees shall perform the following duties:

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- (i) Activate the fire alarm system, where provided.
  - (ii) Notify the public fire department.
  - (iii) Take other action as previously instructed.
- (c) 408.8.3 Fire safety and evacuation instructions. Information shall be provided in the fire safety and evacuation plan required by paragraph (D)(404) of this rule to allow guests to decide whether to evacuate to the outside, evacuate to an area of refuge, remain in place, or any combination of the three.
- (9) 408.9 Group R-2 occupancies. Group R-2 occupancies shall comply with the requirements of paragraph (H)(9)(a)(408.9.1) to (H)(9)(408.9.3) of this rule and paragraphs (A)(401) to (F)(406) of this rule.
  - (a) 408.9.1 Emergency guide. A fire emergency guide shall be provided which describes the location, function and use of fire protection equipment and appliances accessible to residents, including fire alarm systems, smoke alarms, and portable fire extinguishers. The guide shall also include an emergency evacuation plan for each dwelling unit.
  - (b) 408.9.2 Maintenance. Emergency guides shall be reviewed and approved in accordance with paragraph (A)(2)(401.2) of this rule.
  - (c) 408.9.3 Distribution. A copy of the emergency guide shall be given to each tenant prior to initial occupancy.
- (10) 408.10 Group R-4 occupancies. Group R-4 occupancies shall comply with the requirements of paragraphs (H)(10)(a)(408.10.1) to (H)(10)(e)(408.10.5) of this rule and paragraphs (A)(401) to (F)(406) of this rule.
  - (a) 408.10.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by paragraph (D)(404) of this rule shall include special staff actions, including fire protection procedures necessary for residents, and shall be amended or revised upon admission of a resident with unusual needs.
  - (b) 408.10.2 Staff training. Employees shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Such instruction shall be reviewed by the staff at least every two months. A copy of the plan shall be readily available at all times within the facility.
  - (c) 408.10.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a

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fire. The training shall include actions to take if the primary escape route is blocked. Where the resident is given rehabilitation or habilitation training, training in fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

(d) 408.10.4 Drill frequency. Emergency evacuation drills shall be conducted at least six times per year, two times per year on each shift. Twelve drills shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of paragraph (E)(4)(405.4) of this rule.

(e) 408.10.5 Resident participation. Emergency evacuation drills shall involve the actual evacuation of all residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.

Exception: Actual exiting from windows shall not be required. Opening the window and signaling for help shall be an acceptable alternative.

(11) 408.11 Covered mall buildings. Covered mall buildings shall comply with the provisions of paragraphs (H)(11)(a)(408.11.1) to (H)(11)(c)(408.11.3) of this rule.

(a) 408.11.1 Lease plan. A lease plan shall be prepared for each covered mall building. The plan shall include the following information in addition to that required by paragraph (D)(3)(b)(404.3.2) of this rule:

1. Each occupancy, including identification of tenant.

2. Exits from each tenant space.

3. Fire protection features, including the following:

3.1 Fire department connections.

3.2 Fire command center.

3.3 Smoke management system controls.

3.4 Elevators and elevator controls.

3.5 Hose valves outlets.

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3.6 Sprinkler and standpipe control valves.

3.7 Automatic fire-extinguishing system areas.

3.8 Automatic fire detector zones.

3.9 Fire barriers.

(i) 408.11.1.1 Approval. The lease plan shall be submitted to the fire code official for approval, and shall be maintained on site for immediate reference by responding fire service personnel.

(ii) 408.11.1.2 Revisions. The lease plans shall be revised annually or as often as necessary to keep them current. Modifications or changes in tenants or occupancies shall not be made without prior approval of the fire code official and building official.

(b) 408.11.2 Tenant identification. Each occupied tenant space provided with a secondary exit to the exterior or exit corridor shall be provided with tenant identification by business name and/or address. Letters and numbers shall be posted on the corridor side of the door, be plainly legible and shall contrast with their background.

Exception: Tenant identification is not required for anchor stores.

(c) 408.11.3 Maintenance. Unoccupied tenant spaces shall be:

(i) Kept free from the storage of any materials.

(ii) Separated from the remainder of the building by partitions of at least 0.5-inch-thick (12.7 mm) gypsum board or an approved equivalent to the underside of the ceiling of the adjoining tenant spaces.

(iii) Without doors or other access openings other than one door that shall be kept key locked in the closed position except during that time when opened for inspection.

(iv) Kept free from combustible waste and be broom-swept clean.

(I) Section 409 Tornado shelters in schools

(1) 409.1 Pursuant to section 3737.73 of the Revised Code, principals or persons in charge of public or private primary and secondary schools or educational institutions having an average daily attendance of fifty or more pupils shall designate appropriate locations in their respective facilities to be used to

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shelter pupils in case of a tornado, tornado alert, or tornado warning. The designation of such locations shall be in accordance with the standards prescribed by the fire marshal, as set forth herein. However, nothing in these rules shall be construed as requiring a school or institution to construct or improve a facility or area thereof for use as a tornado shelter, or to install a tornado alarm system.

(2) 409.2 Specific safety requirement.

- (a) The fire alarm system shall not be used to alert building occupants of a tornado, tornado alert, or tornado warning.
- (b) The principal or person in charge of the school shall submit a clear, comprehensive, detailed, and legible drawing to the local fire official, showing the building floor plan(s) and designated tornado shelter area(s). Each room or area shown on the plan shall be clearly indicated as to its particular use.
- (c) The drawing required by paragraph (I)(2)(b)(409.2) of this rule, shall be submitted to the local fire official for his information. A copy shall be maintained in the office of each school, for examination by the fire marshal or local fire official.
- (d) Tornado drills shall be conducted at least once a month whenever school is in session during the tornado season. For the purpose of this rule, "tornado season" is the period from the first day of April to the last day of July. A record of such drills shall be maintained in the office of each school for examination by the fire official.
- (e) The occupants of modular classroom facilities shall be moved out of such facilities and to the designated tornado shelter area(s) in the event of a tornado, tornado alert, or tornado warning.
- (f) Each local fire official conducting the annual inspection of each school or institution shall be designated pursuant to section 3737.73 (C) of the Revised Code to verify compliance with the tornado safety provisions of this rule.

(3) 409.3 Standards for shelter designation.

It is recommended that the designation of areas to be used as tornado shelters be in accordance with the following criteria:

- (a) Whenever possible, designate areas which are located below ground level, in the core of the building, in rooms or spaces with short ceiling spans, and on the leeward side. The farther the area is below ground level, the greater the protection. In any event, the area should be on the lowest

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floor, in the center of the building, and in a corridor or small room.

- (b) First aid kits and supplies should be in or close to the tornado shelter area(s).
- (c) Avoid walls of glass, windows, skylights, and areas containing trophy cases or other fixtures of glass.
- (d) Avoid load-bearing walls and exterior walls, especially those on the windward side or facing the south, southwest, or west.
- (e) Avoid corridors which are not baffled with a wall or walls and that open to the south, southwest, or west.
- (f) Avoid an area with only one exit, unless overriding considerations should prevail.
- (g) Avoid rooms or areas which are locked, since they may not be readily accessible during an emergency.
- (h) Avoid, absolutely, chimneys and the use of cars, buses, and modular classroom buildings.
- (i) Avoid rooms or spaces with long ceiling spans, that are opposite openings or doorways that lead into rooms with windows in exterior walls, or that are within the unprotected, falling radius of higher building components.

(4) 409.4 General considerations.

Every building is different and contains some vulnerable elements that cannot be counted upon to withstand a tornado. Portions of buildings that contain one or more of these elements should be avoided wherever possible.

- (a) Windows, skylights, and other components of glass, should be avoided. Glass is no match for tornado force winds and usually breaks into many jagged pieces that are blown into interior spaces from the windward side. Acrylic or poly carbonate plastics are more resistant to impact than glass, but large panes will pop out. Tempered glass will shatter into thousands of cube-like pieces which will be propelled by the winds like shrapnel. Windows at the ends of corridors, particularly those facing south, southwest, and west, are very dangerous. They will probably be blown down the corridor in a wind tunnel effect.
- (b) Windward side walls, which usually are on the south and west, receive the full strength of the winds. It is assumed that windows on these sides will be broken and blown into the rooms on the windward side. This

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often results in increased air pressure, which aids in raising the roof.

- (c) Wind tunnels occur in unprotected corridors facing the oncoming winds, which usually come from the south or west. Openings facing these direction allow the winds to penetrate into interior spaces. The winds apparently occupy almost the entire volume of such a wind tunnel, as debris marks have been found to cover the full height of the walls. If entrances are baffled with a solid massive wall, this effect is much less serious.
- (d) Lightweight roofs such as steel deck plate, wood planks, or plywood will usually be lifted up by the wind and partially carried away, with some roof debris falling below.
- (e) Heavier roofs, especially precast concrete planks, may lift up and move slightly and then fall, but not always returning to their original support location. If the support has collapsed, the heavy roof may fall into the area below.
- (f) Long-span rooms almost always have high ceilings. The exterior walls are usually higher than the typical one-story wall. Often these walls, especially those with southern or western exposures, will collapse into the long span. If they are load-bearing walls, the roof will cave in on the area also. Avoid rooms such as gyms, auditoriums and cafeterias.
- (g) Load-bearing walls are the sole support for floors or roofs above. If winds cause the supporting walls to fail, part or all of the roof or floors above will collapse. The most dangerous locations in a building are usually along the south and west sides, and at all corners.
- (h) Masonry construction is not immune to wall collapse. Most masonry walls are not vertically reinforced, and can fail when high horizontal forces occur, such as those caused by winds.

Replaces: 1301:7-7-07

Effective:

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#### WITHDRAWN ELECTRONICALLY

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#### Certification

06/10/2005

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