DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of the Michigan occupational safety and health act, 1974 PA 154, MCL 408.1016 and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, and 2011-4, MCL 445.2001, 445.2011, 445.2025, and 445.2030)

PART 6. FIRE EXITS

GENERAL PROVISIONS

R 408.10601 Scope.

Rule 601. (1) These rules specify requirements for means of egress for employee use required by the advent of hazardous conditions such as fire, explosion, and natural disaster.

(2) These rules apply to workplaces in general industry except mobile workplaces such as vehicles or vessels.

(3) These rules cover the minimum requirements for exit routes that employers must provide in their workplace so that employees may evacuate the workplace safely during an emergency. These rules cover the minimum requirements for emergency action plans and fire prevention plans.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10602 Applicability.

Rule 602. (1) This part covers new and existing construction. In various sections of this part there are special provisions for existing buildings differing from those for new construction. Where there are no specific provisions in this part for existing buildings, the requirements for new construction shall apply.

(2) If a political subdivision of the state has fire safety standards in conflict with this part, the more restrictive provisions of either the political subdivision or this standard shall apply.

History: 1979 AC.

R 408.10603 Definitions; B to F.

Rule 603. (1) "Breakaway door" means a door that is designed to slide in normal operation and which will swing open in any position when a maximum pressure of 50 pounds is applied to the latch side of the door in an emergency.

(2) "Draw bolt" means a metal bar or rod in the mechanism of a lock that is thrown or withdrawn by turning the key or retracting a lever.

(3) “Electroluminescent” means a light-emitting capacitor. Alternating current excites phosphor atoms when placed between the electrically conductive surfaces to produce light. This light source is typically contained inside the device.

(4) "Fire area of a building" means that space contained within component structural parts that has a fire resistance sufficient to prevent the further spread of fire that originates therein.

(5) "Fire door" means a fire-resistive door assembly, including the frame and hardware.

(6) "Fire resistance" means the property of a material or assembly to withstand fire or give protection from it.

(7) "Flammable" means subject to easy ignition and rapid flaming combustion.

(8) "Floor area" or "gross area" means the floor area within the perimeter of the outside walls of a building, with no deductions for any of the following:

(a) Hallways.

(b) Stairs.

(c) Closets.

(d) Thickness of walls.

(e) Columns.

(f) Other features.

(9) "Flush bolt" means a door bolt that is designed so that when applied it is flush with the face or edge of the door.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10604 Definitions; H to M.

Rule 604. (1) "Hasp and staple" means a fastening device that consists of a slotted hinge plate and a loop (staple).

(2) "Hazardous area" means an area of a building, or portion thereof, used for purposes that involve highly combustible, highly flammable, or explosive products or materials which are likely to burn with extreme rapidity or which may produce poisonous fumes or gases, including highly toxic or noxious acids, alkalines, or irritant hazards; which cause the division of material into fine particles or dust subject to explosion or spontaneous combustion; or which constitute a high fire hazard because of the form, character, or volume of the material used.

(3) "Hazard of contents" means the relative danger of the start and spread of fire, the danger of smoke or gases generated, and the danger of explosion or other occurrence potentially endangering the lives and safety of employees in a building. Where certain features of a building are such as to involve a hazard greater than the hazard of the contents, the greater degree of hazard shall govern.

(4) “High hazard area” means an area inside a workplace in which operations include high hazard materials, processes, or contents.

(5) "High hazard contents" means combustibles of a character or quantity that burn with extreme rapidity or from which extremely poisonous fumes or explosions are to be expected in the case of fire.

(6) "Horizontal exit" means a way of passage from a building to an area of refuge in another building on approximately the same level or a way of passage through or around a fire-resistant wall or fire-resistant partition to an area of refuge on approximately the same level in the same building which affords safety from fire or smoke in the area of escape and areas communicating therewith.

(7) "Listed" means equipment that is listed if it is of a kind mentioned in a list that is published by a nationally recognized testing laboratory that makes periodic inspections of the production of such equipment and that states that such equipment meets nationally recognized standards or has been tested and found safe for use in a specified manner.

(8) "Low hazard contents" means combustibles of such low combustibility that self-propagating fire cannot occur and that consequently the only probable danger will be from panic, fumes, smoke, or fire from some external source.

(9) "Means of egress" also known as an "exit route" means a continuous and unobstructed path of exit travel from any point within a workplace to a place of safety, including refuge areas. A means of egress includes both vertical and horizontal areas along the route of travel. A means of egress or an exit route consists of 3 separate parts and are defined as follows:

(a) "Exit access" means that portion of a means of egress or an exit route which leads to an exit. An example of an exit access is a corridor on the 5th floor of an office building that leads to a 2-hour fire resistance-rated enclosed stairway.

(b) "Exit" means that portion of a means of egress or an exit route that is separated from the area of a building from which escape is to be made by a wall, floor, door, or other means which provides the protected path necessary to proceed with reasonable safety to the exterior of the building. An example of an exit is a 2-hour fire resistance-rated enclosed stairway that leads from the 5th floor of an office building to the outside of the building.

(c) "Exit discharge" means that portion of an exit route that leads directly outside or to a street, walkway, refuge area, public way, or open space with access to the outside. An example of an exit discharge is a door at the bottom of a 2-hour fire resistance-rated enclosed stairway that discharges to a place of safety outside the building.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10605 Definitions; N to S.

Rule 605. (1) "Nationally recognized testing laboratory." See 29 C.F.R. §1910.7 "Definition and requirements for a nationally recognized testing laboratory," as adopted in R 408.10606, for the definition.

(2) "Noncombustible building" means a building that is constructed of materials that do not support fire.

(3) "Occupant load" means the total number of persons that may occupy a workplace or portion of a workplace at any one time. The occupant load of a workplace is calculated by dividing the gross floor area of the workplace or portion of the workplace by the occupant load factor for that particular type of workplace occupancy. Information regarding the "Occupant load" is located in NFPA 101 "Life Safety Code," 2009 edition and in the "International Fire Code" 2009 edition, as adopted in R 408.10606.

(4) "Ordinary hazard contents" means combustibles that are liable to burn with moderate rapidity and to give off a considerable volume of smoke, but from which neither extremely poisonous fumes nor explosions are to be expected in case of fire.

(5) “Refuge area” means either of the following:

(a) A space along an exit route that is protected from the effects of fire by separation from other spaces within the building by a barrier with at least a 1-hour fire resistance-rating.

(b) A floor with at least 2 spaces, separated from each other by smoke-resistant partitions, in a building protected throughout by an automatic sprinkler system that complies with General Industry Safety Standard Part 9 “Fixed Fire Equipment,” as referenced in R 408.10606.

(6) "Self-closing" means equipped with an approved device which will ensure closing without manual assistance after having been opened.

(7) "Sprinklered" means equipped with an approved automatic sprinkler system that is properly maintained.

(8) "Street" means a public thoroughfare that is 30 or more feet in width, that has been dedicated or deeded to the public for public use, and that is accessible for use by a fire department in fighting fires. An enclosed space or tunnel, even though used for vehicular and pedestrian traffic, is not considered a street.

(9) “Self-luminous” means a light source that is illuminated by a self-contained power source, like tritium, and that operates independently from external power sources. Batteries are not acceptable self-contained power sources. The light source is typically contained inside the device.

(10) "Surface bolt" means a locking bolt that is installed on the surface of a door.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10606 Adoption of standards by reference; access to MIOSHA rules.

Rule 606. (1) The National Fire Protection Association NFPA 101 “Life Safety Code,” 2009 edition, is adopted by reference in these rules and is available from IHS Global, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at the following website: http://global.ihs.com, at a cost as of the time of adoption of these rules of $93.00.

(2) The “International Fire Code” 2009 edition, is adopted by reference in these rules and is available from International Code Council, 500 New Jersey Avenue, NW, 6th floor, Washington, DC 20001, USA, telephone number: 1-800-786-4452, or via the internet at the following website: www.iccsafe.org, at a cost as of the time of adoption of these rules of $113.00.

(3) The following federal Occupational Safety and Health Administration (OSHA) regulations are adopted by reference in these rules:

(a) 29 CFR 1910.7 “Definition and requirements for a nationally recognized testing laboratory,” as amended February 25, 2011.

(b) 29 CFR 1910.165 “Employee alarm systems,” as amended September 12, 1980.

(4) The federal regulations adopted by reference in these rules are available from the United States Department of Labor, Occupational Safety and Health Administration website: www.osha.gov, at no charge, as of the time of adoption of these rules.

(5) The standards adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(6) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus $20.00 for shipping and handling.

(7) The following Michigan Occupational Safety and Health Administration (MIOSHA) Standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at the following website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” R 408.10201 to R 408.10241.

(b) General Industry Safety Standard Part 9. “Fixed Fire Equipment,” R 408.10901 to R 408. 10999.

History: 1979 AC; 1990 AACS; 2015 AACS; 2019 AACS.

R 408.10607 Rescinded.

History: 1954 ACS 62, Eff. May 18, 1970; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10608 Notification of emergency escape procedures and routes; designation of evacuation assistants.

Rule 608. (1) An employer shall assure that employees are informed of emergency escape procedures and emergency routes to approved means of egress.

(2) An employer shall designate a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

History: 1990 AACS.

R 408.10610 Rescinded.

History: 1954 ACS 69, Eff. Nov. 15, 1971; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10611 Design of buildings and structures.

Rule 611. (1) The danger to employees must be minimized.

(2) A building or structure designed for human occupancy shall be provided with exits, as prescribed in this part, that permit prompt escape in case of fire or other emergency.

(3) Exits and other safeguards shall be designed so that an employee's safety or preservation of life in case of fire or other emergency is not dependent solely on a single safeguard. Additional safeguards shall be provided for life safety in case any single safeguard is ineffective due to human or mechanical failure.

(4) Exit routes shall be kept free of explosive or highly flammable furnishings or other decorations.

(5) A building or structure shall be constructed, arranged, equipped, maintained, and operated to avoid undue danger to the lives and safety of the employees from fire, smoke, fumes, or panic during the period of time necessary for escape from the building or structure.

(6) An employee alarm system must be operable. Employers shall install and maintain an operable employee alarm system that has a distinctive signal to warn employees of fire or other emergencies, unless employees can promptly see or smell a fire or other hazard in time to provide adequate warning to them. The employee alarm system must comply with General Industry Safety Standard Part 9 “Fixed Fire Equipment,” and 29 C.F.R. 1910.165 “Employee alarm systems” as adopted in R 408.10606.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10612 Occupancy of new buildings.

Rule 612. During new construction, employees shall not occupy a workplace until the exit routes required by these rules are completed and ready for employee use for the portion of the workplace they occupy.

History: 1979 AC; 2015 AACS.

R 408.10613 Occupancy and use during repairs and alterations.

Rule 613. (1) During repairs or alterations, employees shall not occupy a workplace unless the exit routes required by these rules are available and existing fire protections are maintained, or until alternate fire protection is furnished that provides an equivalent level of safety.

(2) Employees shall not be exposed to hazards of flammable or explosive substances or equipment used during construction, repairs, or alterations, that are beyond the normal permissible conditions in the workplace, or that would impede exiting the workplace.

History: 1979 AC; 2015 AACS.

R 408.10614 Operating condition of protective equipment.

Rule 614. A required exit, exit lighting, automatic sprinkler system, fire detection and alarm system, fire door, and other required items of fire protection shall be maintained in proper operating condition.

History: 1979 AC.

R 408.10615 Rescinded.

History: 1954 ACS 62, Eff. May 18, 1970; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10616 Rescinded.

History: 1954 ACS 69, Eff. Nov. 15, 1971; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10617 Rescinded.

History: 1954 ACS 62, Eff. May 18, 1970; rescinded 1954 ACS 79, Eff. May 16, 1974.

CLASSES OF OCCUPANCY AND HAZARD OF CONTENTS

R 408.10621 Classes of occupancy.

Rule 621. A building or part thereof shall be classified as follows:

(a) A hotel, which includes a building, portion of a building, or group of buildings which is under the same management and in which there are more than 16 sleeping accommodations for hire that are primarily used by transients, whether designated as a hotel, apartment hotel, inn, club, or motel or by any other name.

(b) Mercantile occupancy, which includes a store, market, and other room or building for the display and sale of merchandise. Examples of this occupancy are as follows:

(i) Supermarkets.

(ii) Department stores.

(iii) Shopping centers.

(iv) Drugstores.

(v) Auction rooms.

(c) Business occupancy, which means a place used for the transaction of business, other than that covered under mercantile occupancy, for the keeping of accounts and records and for similar purposes. Examples of this occupancy are as follows:

(i) Doctors' and dentists' offices.

(ii) City and township halls.

(iii) Courthouses.

(iv) Libraries.

(v) Schools.

(d) An industrial occupancy, which includes a factory that makes products of all kinds and a property devoted to operations such as processing, assembling, mixing, packaging, finishing or decorating, repairing, and similar operations. Examples of this group are as follows:

(i) Laboratories.

(ii) Dry cleaning plants.

(iii) Power plants.

(iv) Pumping stations.
(v) Smokehouses.
(vi) Laundries.
(vii) Creameries.
(viii) Gas plants.
(ix) Refineries.
(x) Sawmills.
(e) A storage occupancy, which includes a building that is used primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals. Examples of this group are as follows:
(i) Warehouses.
(ii) Cold storage operations.
(iii) Freight terminals.
(iv) Truck and marine terminals.
(v) Bulk oil storage.
(vi) Parking garages.
(vii) Hangars.
(viii) Grain elevators.
(ix) Barns.
(x) Stables.
(f) Miscellaneous occupancies, which means those buildings covered in the provisions of R 408.10691 to R 408.10697.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10622 Multiple and partial occupancies.

Rule 622. (1) If 2 or more classes of occupancy occur in the same building so intermingled that separate safeguards are impracticable, the safeguard facilities shall be sufficient to meet the requirements for each individual area or section, as well as for the entire building.
(2) If a minor portion of a building is used for any purpose incidental to the major occupancy and the minor occupancy does not incur any hazard to the remainder of the building, it shall be classified as part of the major occupancy.

History: 1979 AC.

R 408.10623 Employee emergency action plans.

Rule 623. (1) An employer shall have an emergency action plan whenever required by a particular Michigan occupational safety and health act standard. The requirements in these rules apply to each such emergency action plan.
(2) An emergency action plan shall be in writing, kept in the workplace, and available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees.
(3) An emergency action plan shall include at a minimum all of the following:
(a) Procedures for reporting a fire or other emergency.

(b) Procedures for emergency evacuation, including type of evacuation and exit route assignments.

(c) Procedures to be followed by employees who remain to operate critical plant operations before they evacuate.

(d) Procedures to account for all employees after evacuation.

(e) Procedures to be followed by employees performing rescue or medical duties.

(f) The name or job title of every employee who may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.

(4) An employer shall establish an employee alarm system that is in compliance with the provisions of General Industry Safety Standard Part 9 "Fixed Fire Equipment," and 29 C.F.R. 1910.165 "Employee alarm systems" as adopted in R 408.10606. 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.

(5) An employer shall establish in the emergency action plan the types of evacuation to be used in emergency circumstances.

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

(7) The employer shall review the plan, at the following times, with each employee to whom the plan applies:

(a) When the plan is developed.

(b) If an employee's responsibilities or designated actions under the plan change.

(c) If the plan is changed.

(8) An employer shall review, with each employee, upon initial assignment, those parts of the plan that the employee must know to protect the employee in an emergency.

History: 1993 AACS; 2015 AACS.

R 408.10624 Fire prevention plans.

Rule 624. (1) An employer shall have a fire prevention plan whenever they are required by a particular Michigan occupational safety and health act standard. The requirements in these rules apply to each such fire prevention plan.

(2) A fire prevention plan must be in writing, be kept in the workplace, and be made available to employees for review. However, an employer with 10 or fewer employees may communicate the plan orally to employees.

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

(4) An employer shall inform employees of the fire hazards of the materials and processes to which they are exposed.

(5) An employer shall review, with each employee, upon initial assignment, those parts of the fire prevention plan that the employee must know to protect the employee in an emergency.

(6) An employer shall regularly and properly maintain, according to established procedures, equipment and systems that are installed on heat-producing equipment to

prevent the accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.

(7) Minimum elements of a fire prevention plan shall include all of the following information:

(a) A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.

(b) Procedures to control accumulations of flammable and combustible waste materials.

(c) Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials.

(d) The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires.

(e) The name or job title of employees responsible for the control of fuel source hazards.

History: 1993 AACS; 2015 AACS.

R 408.10625 Rescinded.

History: 1954 ACS 62, Eff. May 18, 1970; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10626 Rescinded.

History: 1954 ACS 62, Eff. May 18, 1970; rescinded 1954 ACS 79, Eff. May 16, 1974.

R 408.10627 Compliance with alternate exit-route codes.

Rule 627. MIOSHA shall deem an employer demonstrating compliance with the exit-route provisions of the NFPA 101 “Life Safety Code,” 2009 edition or the exit-route provisions of the “International Fire Code” 2009 edition, as adopted in R 408.10606, to be in compliance with the corresponding requirements in these rules.

History: 2015 AACS.

MEANS OF EGRESS

R 408.10631 Construction, maintenance, and changes.

Rule 631. (1) The components of a means of egress including doors, stairs, ramps, passages, and signs shall be of substantial construction and shall be maintained in an operable condition.

(2) An exit shall be not less than 28 inches (71.1 cm) wide at all points, except where specifically permitted elsewhere in this part. Where there is only 1 exit access leading to an exit or exit discharge, the width of the exit and exit discharge shall be at least equal to the width of the exit access.

(3) The ceiling of an exit route shall be at least 7 feet 6 inches (2.3 m) high. Any projection from the ceiling shall not reach a point less than 6 feet 8 inches (2.0 m) from the floor.

(4) The width of an exit route shall be sufficient to accommodate the maximum permitted occupant load of each floor served by the exit route.

(5) Objects that project into the exit route shall not reduce the width of the exit route to less than the minimum width requirements for exit routes.

(6) Exit routes must be kept free of explosive or highly flammable furnishings or other decorations.

(7) A space formed with movable or folding partitions and occupied by more than 20 persons shall have an approved means of egress.

(8) An alteration, addition, or change of occupancy that would reduce means of egress below the requirements for a new building is prohibited.

(9) Furnishings and decorations of an explosive or highly flammable character shall not be used in any occupancy.

(10) Where fire retardant paints or solutions are used, they shall be renewed, as necessary to maintain their fire retardant properties.

History: 1979 AC; 2015 AACS.

R 408.10632 Obstructions.

Rule 632. (1) An employer shall ensure that exit routes are free and unobstructed. No materials or equipment may be placed, either permanently or temporarily, within the exit route. The exit access must not go through a room that can be locked, such as a bathroom, to reach an exit or exit discharge, nor may it lead into a dead-end corridor. Stairs or a ramp must be provided where the exit route is not substantially level.

(2) A lock, fastening device, or barrier must not be installed or used on a means of egress in a manner that will prevent or hinder free escape from the inside of a building.

(3) Exit route doors must be free of any device or alarm that could restrict emergency use of the exit route if the device or alarm fails.

(4) Devices such as turnstiles and gates must not be placed so as to obstruct a means of egress.

(5) Combustible or flammable debris, waste, or other material, the burning of which would render hazardous egress from the building must not be placed, stored, or kept on, under, at the bottom of, or adjacent to a means of egress or elevator. Where a means of egress is being obstructed by the placement of movable objects, aisles must be marked, and railings or permanent barriers provided to protect the means of egress against encroachment.

(6) Each exit route door must be free of decorations or signs that obscure the visibility of the exit route door. A mirror must not be placed on an exit door or be placed in or adjacent to an exit in a manner to confuse the direction of exit.

History: 1979 AC; 2015 AACS; 2019 AACS.

R 408.10633 Permissible exits and exit components.

Rule 633. (1) Approved exits for all occupancies regulated by this part shall be restricted to the following permissible types: doors, inside or outside stairs, horizontal exits, ramps, escalators, and fire escapes for existing occupancies.

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

(3) Stairs, landings, and other exit components shall be guarded against falls over open edges, and guards and handrails shall continue the full length of the guarded exit component.

(4) An exit protected by separation from other parts of the building shall have the separating construction meet the following:

(a) The separation shall have not less than a 1-hour fire-resistance rating when the exit connects 3 stories or less. This applies whether the stories connected are above or below the story at which the exit discharge is located.

(b) The separation shall have not less than a 2-hour fire-resistance rating when the exit connects 4 or more stories, whether above or below the floor of discharge.

(c) An opening into an exit must be protected by a self-closing fire door that remains closed or automatically closes in an emergency upon the sounding of a fire alarm or employee alarm system.

(d) An opening in an exit enclosure shall be confined to that which is necessary for access to the enclosure from a normally occupied space and for egress from the enclosure.

(5) Each exit route shall be a permanent part of the workplace.

(6) Each fire door, including its frame and hardware, shall be listed or approved by a nationally recognized testing laboratory. For the definition of a "nationally recognized testing laboratory, see 29 C.F.R. §1910.7 “Definition and requirements for a nationally recognized testing laboratory,” as adopted in R 408.10606.

History: 1979 AC; 2015 AACS.

R 408.10634 Number of exits.

Rule 634. (1) An employer shall ensure that there are an adequate number of exit routes.

(2) Where the contents of a building are classified as high hazard, there shall be not less than 2 exits which are accessible in different directions. All doors shall swing in the direction of exit travel. Where floor areas are divided into rooms, there shall be not less than 2 ways of escape from every room, however small, except for toilet rooms that are not located in areas of high hazard classification.

(3) The exit routes shall be located as far away as practical from each other so that if 1 exit route is blocked by fire or smoke, employees can evacuate using the second exit route.

(4) At least 2 exit routes shall be available in a workplace to permit prompt evacuation of employees and other building occupants during an emergency, except as allowed in subrule (6) of this rule.

(5) More than 2 exit routes shall be available in a workplace if the number of employees, the size of the building, its occupancy, or the arrangement of the workplace is such that all employees would not be able to evacuate safely during an emergency.

(6) A single exit route is permitted where the number of employees, the size of the building, its occupancy, or the arrangement of the workplace is such that all employees would be able to evacuate safely during an emergency.

Note: For assistance in determining the number of exit routes necessary for your workplace, consult NFPA 101 “Life Safety Code,” 2009 edition or “International Fire Code” 2009 edition, as adopted in R 408.10606.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10635 Travel distance to exits.

Rule 635. (1) The total number of exits in a building shall be sufficient so that the maximum travel distance from any occupied space to at least 1 exit shall not exceed the limits specified in R 408.10636.

(2) The distance to an exit shall be measured along the center line of the natural and unobstructed path of travel.

(3) In case of an open area, the distance to an exit shall be measured from the most remote point subject to occupancy. In case of an individual room subject to occupancy by not more than 6 persons, distance to an exit shall be measured from the doors of such room if the path of travel from any point in the room to the door does not exceed 50 feet.

(4) Where an open stairway is part of a path of travel to a required exit, the distance shall include the travel on the stairway, and the travel from the end of the stairway to reach an outside door or other exit, in addition to the distance to reach the stairway.

(5) Where any part of an outside stair or other outside exit is within 15 feet horizontal distance of an unprotected building opening, the distance to an exit shall include the length of travel, to ground level, on the exit itself.

(6) Exits and exit access shall be so arranged that there are no dead-end pockets or hallways whose depths exceed the limits specified for the individual occupancies in table 1.

History: 1979 AC.

R 408.10636 Maximum travel distance to exits.

Rule. 636. Table 1 reads as follows:

TABLE 1			
Type of occupancy	Maximum travel distance to exits (in feet)		Dead-end limits (in feet)
	Unsprinklered	Sprinklered	
Mercantile, ordinary hazard	150	250	50
Mercantile, high hazard	75	75	0
Business	200	300	50
Industrial	200	250	50
Industrial, high hazard	0	75	0
Storage, low and ordinary hazard	200	400	100
Storage, high hazard	75	100	0
Hotels	100	200	50
Note: For miscellaneous structures, See R 408.10691 to R 408.10697			

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10637 Rescinded.

History: 1979 AC; 2015 AACS.

R 408.10638 Rescinded.

History: 1979 AC; 2015 AACS.

R 408.10639 Capacity as affected by population.

Rule 639. (1) The capacity of a means of egress from a building, floor, balcony, tier, or other occupied space shall be sufficient for the population thereof. The population for industrial and storage occupancies shall be based on the maximum number of employees or persons that may be in the space at any time as determined by actual count. All other types of occupancies shall be not less than the number computed in accordance with the provisions of table 2.

(2) Mercantile occupancy in a single-story, noncombustible building with an approved, fully equipped automatic sprinkler system that is in compliance with General Industry Safety Standard Part 9 “Fixed Fire Equipment,” as referenced in R 408.10606, may increase the square footage requirement in table 2 by 100%.

(3) The population of an occupancy shall be limited to the existing exit capacity of a building or space.

(4) Where an exit serves more than 1 floor, only the population of each floor considered individually need be used in computing the capacity of the exit at that level, if the exit capacity is not decreased in the direction of exit travel. Where a means of egress from floors above and below converge at an intermediate level, the capacity of the exit from the point of convergency shall be not less than the combined capacity of the converging exits.

(5) Table 2 reads as follows:

TABLE 2	
Type of occupancy	Square feet per person
Mercantile, street floor or sales basement	30
Mercantile, other floors	60
Mercantile, office	100
Mercantile, storage	300
Business	100
Hotel	200
Industrial	100
Note: The computed population of an occupancy is obtained by dividing the total floor area of a building, floor, or fire area by the indicated square feet per person. Total floor area means the floor area within the perimeter of the outside walls of a building, with no deductions for any of the following: (a) Hallways. (b) Stairs. (c) Closets. (d) Thickness of walls. (e) Columns. (f) Other features.	

(6) The capacity of an exit route shall be adequate. Information regarding the "Occupant load" is located in NFPA 101 “Life Safety Code,” 2009 edition and in the “International Fire Code” 2009 edition, as adopted in R 408.10606.

(7) Exit routes shall support the maximum permitted occupant load for each floor served.

(8) The capacity of an exit route shall not decrease in the direction of exit route travel to the exit discharge.

History: 1979 AC; 2015 AACS.

R 408.10641 Exit access and discharge.

Rule 641. (1) An exit access must not be through a room subject to locking.

(2) An exit access must be so arranged that it will not be necessary to travel through any area of high hazard occupancy to reach the nearest exit.

(3) The minimum width of an exit access must be at least equal to the required width of the exit to which it leads, but not less than 34 inches. The headroom clearance must be not less than 6 feet 8 inches from the floor.

(4) An exit discharge must discharge directly outside or to a street, walkway, refuge area, public way, or to a yard, court, or other open space with access to the outside.

(5) Stairs and other exits must be arranged to make clear the direction of egress to the street. Where an exit stairs continues beyond the floor of discharge, it must be interrupted at the floor of discharge by a partition, door, or other effective means.

(6) Exit access by the way of an exterior balcony, porch, gallery, or roof must be in compliance with all of the following:

(a) Be kept free from accumulations of snow and ice.

(b) Be a permanent direct route without obstructions, such as railings, gates, barriers, or other objects, that might divide the space into sections or rooms. Furniture or other movable objects must not block the path of travel.

(c) Have no dead ends in excess of 20 feet.

(d) Comply with this standard as to requirements for width and arrangement.

(7) The street, walkway, refuge area, public way, or open space to which an exit discharge leads must be large enough to accommodate the building occupants likely to use the exit route.

(8) An exit door must be unlocked.

(9) An outdoor exit route is permitted.

(10) The outdoor exit route must have all of the following:

(a) Guardrails to protect unenclosed sides if a fall hazard exists.

(b) Be covered if snow or ice is likely to accumulate along the route, unless the employer can demonstrate that any snow or ice accumulation will be removed before it presents a slipping hazard.

(c) Be reasonably straight and have smooth, solid, substantially level walkways.

(d) Not have a dead-end that is longer than 20 feet (6.2 m).

(11) An exit access must be so arranged that employees will not have to travel toward a high hazard area, unless the path of travel is effectively shielded from the high hazard area by suitable partitions or other physical barriers.

History: 1979 AC; 2015 AACS; 2019 AACS.

DOORS AND STAIRS

R 408.10643 Doors; general provisions.

Rule 643. (1) A door assembly, including the doorway, frame, door, and necessary hardware, may be used as a component in a means of egress when it conforms to the requirements of this part. As such, the assembly is designated as an exit door.

(2) A single leaf of an exit door shall be not less than 28 inches nor more than 48 inches in width.

(3) Where a door or gate opens directly on a stairway, a platform shall be provided, and the swing of the door or gate shall not reduce the floor area leading to the stairs to a width less than 20 inches.

History: 1979 AC; 2015 AACS.

R 408.10644 Door swing.

Rule 644. (1) A side-hinged exit door shall be used. The force required to fully open any door in the means of egress shall not be more than 5 pounds applied to the latch side of the door. The door shall swing with exit travel when serving an area of high hazard occupancy or a building, floor, or area with a population of more than 50 persons.

(2) If 1 or more approved exits are provided and the travel distance requires additional exits, a mechanically aided sliding door may be used to exit to the outside of a building constructed before May 15, 1970, under the following conditions:

(a) The occupancy shall be classified as a low or ordinary storage hazard or an ordinary mercantile hazard.

(b) The mechanical aid to the door shall allow the door to be opened quickly and easily by 1 person.

(c) The mechanical aid of the door shall not be rendered inoperative by fire or the lack of maintenance.

(3) An exit door that gives access to a stairway shall swing in the direction of exit travel, shall not block stairs or landings during its swing, and shall not interfere with the full use of the stairway when open.

(4) An exit door at the foot of stairs from upper floors or at the head of stairs from basements shall swing with exit travel.

(5) A screen door or storm door that is part of a required exit shall not swing against the direction of exit travel in any case where doors are required to swing with exit travel.

(6) A side-hinged door shall be used to connect any room to an exit route.

(7) The door that connects any room to an exit route shall swing out in the direction of exit travel if the room is designed to be occupied by more than 50 people or if the room is a high hazard area; for example, it contains contents that are likely to burn with extreme rapidity or explode.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10645 Locks, fastening devices, and closing mechanism.

Rule 645. (1) Employees shall be able to open an exit route door from the inside at all times without keys, tools, or special knowledge. A device such as a panic bar that locks only from the outside is permitted on exit discharge doors.

(2) A latch or other fastening device on an exit door shall be provided with a knob, handle, panic bar, or other simple type of releasing device. Slide bolts, hasps, hooks and eyes, and similar types of locking devices that are difficult to open against door pressure shall not be installed or used.

(3) A fire door to a stair enclosure or horizontal exit shall be provided with a reliable self-closing mechanism and shall not, at any time, be secured in the open position.

(4) An exit route door may be locked from the inside only in mental, penal, or correctional facilities and then only if supervisory personnel are continuously on duty and the employer has a plan to remove occupants from the facility during an emergency.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10646 Power operated doors.

Rule 646. An exit door, wholly or partly power operated, shall be so designed that in case of power failure it can be manually operated. A power operated door shall not be counted as a required exit unless it swings with the exit travel.

History: 1979 AC.

R 408.10647 Revolving doors.

Rule 647. (1) A revolving door shall be considered an approved exit door only if all of the following conditions are satisfied:

(a) The door shall be installed before the prohibition listed in subrule (2) of this rule.

(b) The number of revolving doors used as exit doors shall not be more than the number of swinging doors used as exit doors within 20 feet thereof.

(c) A revolving door without an adjacent swinging door may serve as an exit for a street floor elevator lobby if no stairway or door from other parts of the building discharges through the lobby and the lobby has no occupancy other than as a means of travel between elevators and the street.

(d) A revolving door shall be equipped with means to prevent its rotation at more than 12 1/2 revolutions per minute.

(e) A revolving door shall not be used at the foot of stairs from upper floors or at the head of stairs from the basement or other lower floors.

(f) A revolving door credited as an exit door shall have a rated capacity of 1/2 unit of exit width.

(2) A revolving door that is installed after June 15, 1990, shall not be considered an approved exit door.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10651 Stairs.

Rule 651. (1) Stairs serving as a required exit shall comply with the requirements of this part as to construction specifications and details, and of table 3.

TABLE 3	
Minimum width clear of all obstructions except handrails which may project not more than 3 1/2 inches each side.	44 inches. 36 inches where total occupancy of all floors is served by stairway is less than 50 persons.
Maximum height of risers:	
Existing construction New construction	9 inches. 8 inches

Minimum width of tread exclusive of nosing or projection:	
Existing construction New construction	8 inches. 10 inches.
Winders:	
Existing construction - New construction -	Permitted when complying with all other requirements of this part. Not permitted.
Maximum height between landings	12 feet.
Minimum dimension of landing in direction of travel	44 inches

(2) A variation in the width of tread or height of risers in any flight shall not exceed 3/16 inch.

(3) A stair and a platform or landing used in connection therewith, in a building 4 stories or more in height, shall be of noncombustible construction throughout, except for handrails.

(4) A stair, platform, landing, balcony, and stair hallway floor shall be designed to carry a load of 100 pounds per square foot, or a concentrated load of 300 pounds so located as to produce maximum stress conditions.

(5) Where the material of stair treads and landings is such as to involve danger of slipping, nonslip material shall be provided on the tread surface.

(6) Stairways and intermediate landings shall continue with no decrease in width along the direction of exit travel.

(7) Monumental stairs, either inside or outside, may be accepted as required exits if all requirements for exit stairs are complied with, except that curved stairs may be accepted with a radius of 25 feet or more at the inner edges.

History: 1979 AC.

HORIZONTAL EXITS, RAMPS, AND ESCALATORS

R 408.10661 Horizontal exits.

Rule 661. (1) A fire area or area of refuge with a horizontal exit shall have, in addition to the horizontal exit or exits, at least 1 means of egress leading to the outside, or have access to an adjacent fire area containing an outside means of egress.

(2) Where either side of a horizontal exit is occupied, the doors used in connection with the horizontal exit shall be unlocked.

(3) The floor area on either side of a horizontal exit shall be sufficient to hold the occupants of both floor areas allowing not less than 3 square feet clear floor area per person.

(4) Where a horizontal exit serves areas on both sides of a wall, there shall be adjacent openings with swinging doors at each, opening in opposite directions, with signs on each side of the wall or partition indicating as the exit door which swings with the travel from

that side; or other approved arrangements providing doors always swinging with any possible exit travel.

History: 1979 AC; 2015 AACS.

R 408.10664 Ramps.

Rule 664. (1) A ramp may be a component in a means of egress when it conforms to the requirements of this part. A ramp which is constructed after June 15, 1990, and which is less than the minimum measurements prescribed in this rule shall not be considered as an approved part of a means of egress.

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

(3) The slope of a ramp shall not vary between landings. A landing shall be level and the changes in direction of travel, if any, shall be made only at landings.

(4) A ramp in a building that is more than 3 stories in height shall be made of noncombustible construction. A ramp floor and landings shall be solid and without perforations.

(5) A ramp shall have a nonslip surface.

(6) A ramp shall have a minimum width of 44 inches and a maximum slope of 1 inch in 12 inches.

History: 1979 AC; 1990 AACS; 2015 AACS.

R 408.10667 Escalators.

Rule 667. An escalator, to be considered a component of means of egress, shall be fully enclosed above the ground floor and equipped with fire doors containing fusible links to protect the escalator area against the passage of flame, smoke, and gases in the event of fire. An escalator being operated in the direction contrary to normal exit travel shall not be considered a means of egress.

History: 1979 AC.

FIRE ESCAPES

R 408.10671 Fire escape stairs.

Rule 671. (1) Fire escape stairs may be used as a required exit only in existing buildings. Fire escape stairs shall not constitute more than 50% of the required exit capacity. Fire escape stairs shall not constitute any part of the required exits for a new building.

(2) Fire escape stair dimensions shall be in accordance with table 4.

TABLE 4	
Minimum Width	22 inches clear between rails
Minimum horizontal dimension of a landing or platform	22 inches
Maximum rise	9 inches
Minimum tread, exclusive of nosing	9 inches
Spiral winders	Not permitted
Maximum height between landings	12 feet

(3) Fire escape stairs shall have walls or approved guards, and handrails on both sides.

History: 1979 AC; 2015 AACS.

R 408.10672 Stair construction and load.

Rule 672. (1) Iron, steel, concrete, or other approved noncombustible material shall be used for the construction of fire escape stairs, balconies, railings, and other features appurtenant thereto.

(2) Balconies and stairs shall be designed to carry a load of 100 pounds per square foot, or a concentrated load of 300 pounds so located as to produce maximum stress conditions.

History: 1979 AC.

R 408.10673 Exposure to fire escape stairs.

Rule 673. Fire escape stairs shall be so arranged that they will be subject to exposure by the smallest possible number of window and door openings. Every opening, any portion of which is within the following limits, shall be completely protected by approved fire doors or metal frame wired glass windows, as follows:

(a) A horizontal opening if within 15 feet of a balcony, platform or stairway constituting a part of the escape proper. This does not apply to a platform or walkway leading from the same floor to the escape proper. Protection need not extend around a right angle corner (outside angle 270 degrees) of the building.

(b) An opening below if within 3 stories or 36 feet of a balcony, platform, walkway or stairway constituting a part of the escape proper, or within 2 stories or 24 feet of a platform or walkway leading from any story to the escape proper.

(c) An opening above if within 10 feet of a balcony, platform or walkway, as measured vertically, or from any stair treads, as measured vertically from the face of the outside riser.

(d) An opening on a top story. Protection for wall openings is not required where stairs do not lead to the roof.

History: 1979 AC; 2015 AACS.

R 408.10674 Access to fire escape stairs.

Rule 674. (1) Access to fire escape stairs shall be by doors or casement windows whose minimum dimensions are 24 inches by 6 feet 6 inches, or by double hung windows 30 by 36 inches clear opening. Double hung windows shall be so counterbalanced and maintained that they can be readily opened.

(2) Insert screens, if any, on any type of opening giving access to fire escape stairs shall be of types that may be readily opened or pushed out. Storm sash shall not be used on a window providing access to fire escape stairs.

(3) Access to fire escape stairs through windows with sills more than 12 inches above the inside floor level shall be provided with permanent access steps leading to the access window. The outside balcony shall not be more than 18 inches below the sill.

History: 1979 AC.

R 408.10675 Swinging stairs.

Rule 675. (1) A swinging stair section shall not be used for a fire escape stairs, except where termination is over a sidewalk, alley, or driveway.

(2) A swinging stair section shall not be located over doors, over the path of travel from another exit, nor be in any location where there are obstructions.

(3) The width of a swinging stair section shall be at least equal to that of the stairs above and the pitch shall not be steeper than that of the stairs above.

(4) A counterweight shall be provided for a swinging stair section and this shall be of the type balancing about a pivot, no cables being used. Counter-balancing shall be such that a weight of 150 pounds 1 step from pivot will not start swinging section, and a weight of 150 pounds, 1/4 of the length of the swinging stairs from the pivot, will positively cause the stairs to swing down.

(5) A latch or other device shall not be installed or used to lock a swinging stair section in the up position.

History: 1979 AC; 2015 AACS.

R 408.10677 Ladders.

Rule 677. No form of ladder shall be used as a fire escape except that a ladder conforming to General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” as referenced in R 408.10606, may be used to provide a means of escape from a boiler room, storage elevator, or tower, as permitted for special miscellaneous occupancies, elevated platforms around machinery, or similar spaces subject to routine simultaneous occupancy by not more than 3 persons.

History: 1979 AC; 2015 AACS; 2019 AACS.

R 408.10679 Rescinded.

History: 1979 AC; 1998-2000 AACS.

ILLUMINATION AND MARKING

R 408.10680 Lighting.

Rule 680. (1) Lighting and marking shall be adequate and appropriate.

(2) Each exit route shall be adequately lighted so that an employee with normal vision can see along the exit route.

History: 2015 AACS.

R 408.10681 Artificial lighting.

Rule 681. (1) A means of egress shall be illuminated by artificial lighting at places and for periods of time required to maintain the illumination to values not less than 1.0 footcandles measured at the floor. Illumination shall be so arranged that the failure of any single lighting unit, such as the burning out of an electric bulb, will not leave the area in darkness.

(2) Artificial lighting shall be from a source of reasonable reliability, such as a public utility service. A battery operated electric light or any type of portable lamp or lantern shall not be used for primary exit illumination. Luminescent, fluorescent, or reflective material shall not be used as a substitute for required illumination.

History: 1979 AC.

R 408.10682 Emergency illumination.

Rule 682. In a building with natural lighting subject to occupancy by more than 300 persons, and in a building for which no natural lighting is provided and subject to occupancy by more than 100 persons, approved emergency lighting facilities shall be provided for a means of egress so arranged that required exit illumination will be maintained for a period of at least 1/2 hour in the event of failure of normal lighting of the building. Emergency lighting facilities shall be automatic, and there shall be no appreciable period of interruption during the change-over from the normal lighting of the building.

History: 1979 AC.

R 408.10685 Signs.

Rule 685. (1) A means of egress to an exit not immediately apparent from any point in an occupancy shall be marked by directional signs. Additionally, the line-of-sight to an exit sign shall be clearly visible at all times.

(2) A door, passage, or stairway, which is neither an exit nor an exit access, and which is so located or arranged as to be likely mistaken for an exit, shall be identified by a sign reading "NOT AN EXIT" or similar designation, or be identified by a sign indicating its actual use or character.

(3) A sign shall designate an exit and shall be located and be of such size and color and design as to be readily visible and identifiable from the distance of travel for that particular occupancy.

(4) Each exit must be clearly visible and marked by a sign reading "EXIT."

History: 1979 AC; 2015 AACS.

R 408.10686 Sign illumination and letter size.

Rule 686. (1) An exit sign shall be illuminated to a surface value of at least 5 foot-candles (54 lux) by a reliable light source and be distinctive in color. Self-luminous or electroluminescent signs that have a minimum luminance surface value of at least .06 foot lamberts (0.21 cd/m^2) are permitted.

(2) An exit sign shall have the word "EXIT" in plainly legible letters not less than 6 inches (15.2 cm) high, with the principal strokes of the letters in the word "EXIT" not less than 3/4 of an inch (1.9 cm) wide.

(3) An internally illuminated exit sign shall be provided where the reduction of normal illumination is permitted and less than 5 footcandles would appear on the exit sign.

History: 1979 AC; 2015 AACS.

MISCELLANEOUS OCCUPANCIES

R 408.10691 Vehicles.

Rule 691. A house trailer or similar vehicle, railroad car, street car, truck, or bus from which the wheels have been removed and a permanent-type foundation provided, or otherwise fixed so that it is no longer mobile, is considered a building and is subject to the requirements of this part.

History: 1979 AC.

R 408.10692 Vessels.

Rule 692. A ship, barge, or other vessel permanently moored or aground and occupied for purposes other than navigation is subject to the requirements of this part.

History: 1979 AC.

R 408.10693 Open buildings.

Rule 693. An open building includes all operations conducted in the open air where equipment is in the open with platforms used for necessary access, sometimes with roofs or canopies to provide shelter, but without walls as distinguished from an enclosed building. An open building shall have exit facilities providing at least 1 means of escape

from any point subject to employee occupancy, such means of escape affording safety from fire or smoke therefrom, explosion or release of fumes.

History: 1979 AC.

R 408.10694 Aircraft hangars.

Rule 694. (1) An exit from an aircraft storage or servicing area shall be provided at intervals of not more than 150 feet on all exterior walls of the aircraft hangar. A minimum of 2 exits shall serve each aircraft storage or servicing area. Horizontal exits through interior walls shall be provided at intervals of not more than 100 feet. Dwarf or "smash" doors in doors accommodating aircraft may be used to comply with these requirements.

(2) An exit from a mezzanine floor in an aircraft storage or servicing area shall be so arranged that the maximum travel to reach the nearest exit from any point on the mezzanine shall not exceed 75 feet.

History: 1979 AC.

R 408.10695 Storage elevators for combustible commodities.

Rule 695. (1) In a storage elevator for combustible commodities there must be at least 1 stairway from the basement to the first floor and from the first floor to the top floor of the working house that is enclosed in a dust-tight, non-combustible shaft.

(2) A non-combustible door of the self-closing type must be provided at each floor landing.

(3) An exterior stair or basket ladder-type fire escape, must be provided from the roof of the working house to ground level or to the roof of an adjoining annex with access from all floors above the first, in compliance with General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” as referenced in R 408.10606.

(4) An exterior stair or basket ladder-type fire escape, must be provided from the roof of each storage annex to ground level, in compliance with General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” as referenced in R 408.10606.

(5) A fire escape ladder must be provided adjacent to a manlift for the up and down sides.

(6) A storage elevator must have an opening that leads to a fire escape ladder from each floor or work level.

(7) Storage elevators for combustible commodities that exist before April 30, 1974, do not need to comply with the provisions of subrules (1) and (2) of this rule.

History: 1979 AC; 1990 AACS; 2015 AACS; 2019 AACS.

R 408.10696 Towers.

Rule 696. (1) A tower occupied for purposes such as observation or signaling, either an independent structure or on top of a building, shall be permitted with a single stairway or ramp exit if all of the following conditions are met:

(a) The tower is of such size as not to be subject to occupancy by more than 25 persons on any 1 floor level.

(b) The tower is subject only to occupancy by persons capable of descending the stairway and is not used for living or sleeping purposes.

(c) The construction is fire-resistive, non-combustible, or heavy timber, with no quick-burning interior finish. There must be no combustible materials in, under, or in the immediate vicinity of the tower, except as necessary to perform the requirements of occupancy.

(2) Stairs must conform to the requirements of this standard, except that for existing towers fire escape type stairs may be used in compliance with General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” as referenced in R 408.10606.

(3) A tower, such as a forest fire observation tower and a railroad signal tower designed for occupancy by not more than 3 persons employed therein, need not be constructed of fire-resistive, non-combustible material and may be served by ladders instead of stairs in compliance with General Industry Safety and Health Standard Part 2. “Walking-Working Surfaces,” as referenced in R 408.10606.

History: 1979 AC; 2015 AACS; 2019 AACS.

R 408.10697 Piers and water-surrounded buildings.

Rule 697. (1) A pier used for any purpose other than for mooring of vessels and handling of cargo shall be provided with a means of egress from any building thereon to the pier and from the pier to the mainland appropriate to the character of the occupancy of the pier.

(2) A building, such as a lighthouse, surrounded by water shall have a sufficient area of ground, as on an island or fire-resistive platform, to provide an adequate area of refuge from a fire in the building.

History: 1979 AC.