

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY STANDARDS

(By authority conferred on the director of the department of licensing and regulatory affairs by sections 16 and 21 of 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 73. FIRE BRIGADES

R 408.17301 Scope.

Rule 7301. This standard is applicable to fire brigades, industrial fire departments, and private or contractual-type fire departments when established by an employer, and provides for the organization, training, and personal protective equipment to be used. This standard does not apply to airport crash rescue operations or forest fire fighting operations.

History: 1984 AACCS.

R 408.17302. Adopted and referenced standards,

Rule 7302. (1) The National Fire Protection Association Standard NFPA 1971 “Standard on protective ensemble for structural fire fighting and proximity fire fighting,” 1997 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 website: www.global.ihs.com; at a cost as of the time of adoption of these rules, of \$27.00.

(2) The standards adopted in these rules are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 7150 Harris Drive, Lansing, Michigan, 48909-8143.

(3) 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, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

(4) The following Michigan occupational safety and health standards (MIOSHA) 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, 7150 Harris Drive, P.O. Box 30643, Lansing, MI, 48909-8143 or via the internet at website: www.michigan.gov/miohastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.

(a) General Industry Safety Standard Part 8 “Portable Fire Extinguishers,” R 408.10801 to R 408.10839.

(b) General Industry Safety Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 40898.

(c) Occupational Health Standard Part 451 “Respiratory Protection,” R 325.60051 to R 325.60052.

History: 2015 AACCS.

R 408.17303 Definitions; A to E

Rule 7303. (1) “Approved” means approval by the director of the department of licensing and regulatory affairs or his or her duly designated representative.

(2) “Approved label” means a label or other identifying mark of a nationally recognized testing laboratory, such as underwriters laboratory, inc. or factory mutual research corp., that maintains a periodic inspection of production of labeled equipment or materials and by whose labeling indicates compliance with nationally recognized standards or tests to determine suitable usage in a specified manner.

(3) “Education” means the process of imparting knowledge or skill through systematic instruction. “Education” does not require formal classroom instruction.

(4) “Enclosed structure” means a structure that has a roof or ceiling and not less than 2 walls that may present fire hazards to employees, such as accumulations of smoke, toxic gases, and heat similar to those found in buildings.

History: 1984 AACCS; 1998-2000 AACCS; 2013 AACCS.

R 408.17305 Definitions; F to I.

Rule 7305. (1) "Fire brigade" means a private or industrial fire department consisting of an organized group of employees who are knowledgeable, trained, and skilled in at least basic fire fighting operations.

(2) "Flame resistance" means the property of materials, or combinations of component materials, that retards ignition and restricts the spread of flame.

(3) "Helmet" means a head protective device consisting of a rigid shell, energy absorption system, and chin strap intended to be worn to provide protection of the head, or portions thereof, against impact, flying or falling objects, electric shock, penetration, heat, and flame.

(4) "Incipient stage fire" means a fire which is in the initial or beginning stage and which can be controlled or extinguished by portable fire extinguishers, class II standpipe, or small hose systems.

(5) "Interior structural fire fighting" means the physical activity of fire suppression or rescue, or both, inside of buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.

History: 1984 AACCS.

R 408.17307 Definitions; L to P.

Rule 7307. (1) "Lining" means a material permanently attached to the inside of the outer shell of a garment for the purpose of thermal protection and padding.

(2) "Maintenance" means the performance of services on fire protection equipment and systems and fire fighting equipment to assure that they will perform as expected in the event of fire. Maintenance differs from inspection in that maintenance requires the checking of internal fittings, devices, and agent supplies.

(3) "Outer shell" means the exterior layer of material on the fire coat and protective trousers which forms the outermost barrier between the fire fighter and the environment. The outer shell is attached to the vapor barrier and lining and is usually constructed with a storm flap, suitable closures, and pockets.

(4) "Positive-pressure breathing apparatus" means a self-contained breathing apparatus in which the pressure in the breathing zone is positive in relation to the immediate environment during inhalation and exhalation.

History: 1984 AACCS.

R 408.17309 Definitions; Q to V.

Rule 7309. (1) "Quick disconnect valve" means a device which starts the flow of air by inserting the hose from the facepiece into the regulator of the self-contained breathing apparatus and stops the flow of air by disconnecting the hose from the regulator.

(2) "Training" means the process of making proficient through instruction and hands-on practice in the operation of equipment that is expected to be used and in the performance of assigned duties.

(3) "Vapor barrier" means the material used to prevent or substantially inhibit the transfer of water, corrosive liquids, or steam or other hot vapors from the outside of the garment to the wearer's body.

History: 1984 AACCS.

R 408.17310 Employer responsibilities.

Rule 7310. (1) The employer having a fire brigade shall prepare and maintain a statement or written policy that establishes the existence of a fire brigade; and the basic organizational structure; the type, amount, and frequency of training to be provided to fire brigade members; the expected number of members in the fire brigade; and the functions that the fire brigade is to perform at the workplace. The organizational statement shall be available for inspection by the director of the department of licensing and regulatory affairs and by employees or their designated representatives.

(2) The employer shall assure that employees who are expected to do structural fire fighting are physically capable of performing duties that may be assigned to them during emergencies. The employer shall not permit employees with known heart disease, epilepsy, or emphysema to participate in fire brigade emergency activities unless a physician's certificate of the employees' fitness to participate in such activities is provided. For employees assigned to fire brigades before September 15, 1980, this rule is

effective on September 15, 1985. For employees assigned to fire brigades after September 15, 1980, this rule applies.

(3) The employer shall provide training and education for all fire brigade members commensurate with those duties and functions that fire brigade members are expected to perform. Such training and education shall be provided to fire brigade members before they perform fire brigade emergency activities. Fire brigade leaders and training instructors shall be provided with training and education which is more comprehensive than that provided to the general membership of the fire brigade.

(4) The quality of training and education programs for fire brigade members shall be similar to the training and programs conducted by such fire training schools as any of the following:

- (a) Maryland fire and rescue institute.
- (b) Iowa fire service extension.
- (c) West Virginia fire service extension.
- (d) Georgia fire academy.
- (e) New York state department, fire prevention and control.
- (f) Louisiana state university firemen training program.
- (g) Michigan's Macomb community college, fire and emergency services training center.
- (h) Washington state's fire service training commission for vocational education.

(5) The training and education program for oil refinery industry fire brigade members shall be similar in quality to the training and education program conducted by any of the following:

- (a) Macomb community college of Michigan, fire and emergency services training center.
- (b) Texas A & M university.
- (c) Lamar university.
- (d) Reno fire school.
- (e) Delaware state fire school.

(6) Training for incipient fires shall be similar to the training provided by the fire training schools listed in subrule (4) of this rule or to the fire training for incipient fires offered by the school of labor and industrial relations at Michigan state university.

(7) An employer shall assure that training and education is conducted frequently enough to ensure that each member of the fire brigade is able to perform the member's assigned duties and functions satisfactorily and in a safe manner so as not to endanger fire brigade members or other employees. All fire brigade members shall be provided with training at least annually. In addition, fire brigade members who are expected to perform interior structural fire fighting shall be provided with an education session or training at least quarterly.

(8) An employer shall inform fire brigade members about special hazards, such as the storage and use of flammable liquids and gases, toxic chemicals, radioactive sources, and water reactive substances, to which they may be exposed during a fire and other emergencies. The fire brigade members shall also be advised of any changes that occur in relation to the special hazards.

(9) An employer shall develop written procedures that describe the actions to be taken in situations involving special hazards and shall include these written procedures in

the training and education program. An employer shall make the procedures available for inspection by fire brigade members.

History: 1984 AACCS; 1998-2000 AACCS; 2013 AACCS; 2015 AACCS.

R 408.17312 Fire fighting equipment.

Rule 7312. (1) The employer shall maintain and inspect, at least annually, fire fighting equipment to assure the safe operational condition of the equipment.

(2) The employer shall ensure that portable fire extinguishers are inspected, at least monthly, in accordance with General Industry Safety Standard Part 8 “Portable Fire Extinguishers,” as referenced in R 408.17302.

(3) The employer shall ensure that fire fighting equipment that is in damaged or unserviceable condition is removed from service and replaced.

History: 1984 AACCS; 2015 AACCS.

R 408.17314 Personal protective equipment generally.

Rule 7314. (1) The requirements in these rules apply to those employees who perform interior structural fire fighting. The requirements do not apply to employees who use fire extinguishers or standpipe systems to control or extinguish fires only in the incipient stage.

(2) An employer shall provide, and ensure the use of protective clothing that is in compliance with the requirements of this part. An employer shall provide the clothing without cost to an employee. An employer shall assure that protective clothing ordered or purchased after March 1, 1984, meets the requirements contained in this part. As new equipment is provided, an employer shall assure that all fire brigade members wear the equipment when performing interior structural fire fighting. An employer shall provide foot and leg protection. An employer shall ensure that protective shoes or boots that are worn in combination with protective trousers meet the requirements of R 408.17316.

(3) The employer shall assure that protective clothing protects the head, body, and extremities, and consists of at least the following components:

- (a) Foot and leg protection.
- (b) Hand protection.
- (c) Body protection.
- (d) Face, eye, and head protection.

History: 1984 AACCS; 1998-2000 AACCS; 2015 AACCS.

R 408.17315 Foot and leg protection.

Rule 7315. (1) Foot and leg protection shall be provided and may be achieved by either of the following methods:

- (a) Fully extended boots which provide protection for the legs.
- (b) Protective shoes or boots worn in combination with protective trousers that meet the requirements of R 408.17316.

(2) An employer shall ensure that protective footwear meets the requirements of NFPA 1971 “Standard on protective ensemble for structural fire fighting and proximity fire fighting,” 1997 edition, as adopted in R 408.17302.

History: 1984 AACCS; 1998-2000 AACCS; 2013 AACCS; 2015 AACCS.

R 408.17316. Body protection.

Rule 7316. (1) Body protection shall be coordinated with foot and leg protection to ensure full body protection for the wearer, which shall be achieved by 1 of the following methods:

(a) Wearing of a fire-resistive coat meeting the requirements of subrule (2) of this rule in combination with fully extended boots meeting the requirements of R 408.17315.

(b) Wearing of fire-resistive coat in combination with protective trousers both of which meet the requirements of subrule (2) of this rule.

(2) The performance, construction, and testing of fire-resistive coats and protective trousers shall be at least equivalent to the requirements of NFPA 1971 “Standard on protective ensemble for structural fire fighting and proximity fire fighting,” 1997 edition, as adopted in R 408.17302.

History: 1984 AACCS; 1998-2000 AACCS; 2015 AACCS.

R 408.17317 Hand protection.

Rule 7317. Hand protection shall consist of protective gloves or a glove system that will provide protection against cuts, punctures, and heat penetration. Gloves or a glove system shall meet the requirements of NFPA 1971 “Standard on protective ensemble for structural fire fighting and proximity fire fighting,” 1997 edition, as adopted in R 408.17302.

History: 1984 AACCS; 1998-2000 AACCS; 2015 AACCS.

R 408.17318 Head, eye, and face protection.

Rule 7318. (1) Head protection shall consist of a protective head device that has ear flaps and a chin strap that meet the performance, construction, and testing requirements of NFPA 1971 “Standard on protective ensemble for structural fire fighting and proximity fire fighting,” 1997 edition, as adopted in R 408.17302.

(2) Protective eye and face devices that comply with General Industry Safety Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.17302, shall be used by fire brigade members when performing operations where the hazards of flying or falling materials are present and might cause eye and face injuries.

(3) Full facepieces, helmets, or hoods of breathing apparatus that meet the requirements of General Industry Safety Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.17302, are acceptable as meeting the eye and face protection requirements of this part.

(4) Protective eye and face devices provided as accessories to protective head devices, face shields are permitted if the devices meet the requirements of General Industry Safety Standard Part 33 “Personal Protective Equipment,” as referenced in R 408.17302.

History: 1984 AACS; 1998-2000 AACS; 2013 AACS; 2015 AACS.

R 408.17320 Respiratory protection devices.

Rule 7320. (1) An employer shall ensure that respirators are provided to, and used by, each fire brigade member, and that the respirators meet the requirements of Occupational Health Standard Part 451 “Respiratory Protection,” as referenced in R 408.17302, for each employee required to use a respirator.

(2) Self-contained breathing apparatus shall be provided with an indicator that automatically sounds an audible alarm when the remaining service life of the apparatus is reduced to within a range of 20% to 25% of its rated service time.

(3) An employer shall ensure that self-contained breathing apparatus ordered or purchased after July 1, 1981, for use by fire brigade members performing interior structural fire fighting operations, are of the pressure-demand or other positive-pressure type. Effective July 1, 1983, only pressure-demand or other positive-pressure self-contained breathing apparatus shall be worn by fire brigade members performing interior structural fire fighting.

(4) Subrule (3) of this rule does not prohibit the use of a self-contained breathing apparatus if the apparatus can be switched from a demand mode to a positive-pressure mode. However, such apparatus shall be in the positive-pressure mode when fire brigade members are performing interior structural fire fighting operations.

History: 1984 AACS; 1998-2000 AACS; 2013 AACS; 2015 AACS.

R 408.17322 Rescinded.

History: 1984 AACS; 1998-2000 AACS.