

DEPARTMENT OF ~~LICENSING AND REGULATORY AFFAIRS~~ **LABOR AND
ECONOMIC OPPORTUNITY**

DIRECTOR'S OFFICE

GENERAL INDUSTRY SAFETY AND HEALTH STANDARDS

Filed with the Secretary of State on

These rules ~~take effect~~ **become effective** immediately ~~upon~~ **after** filing with the secretary of state unless adopted under section 33, 44, or 45a(69) of the administrative procedures act of 1969, 1969 PA 306, MCL 24.233, 24.244, or 24.245a. Rules adopted under these sections become effective 7 days after filing with the secretary of state.

(By authority conferred on the director of the department of ~~licensing and regulatory affairs~~ **labor and economic opportunity** by sections ~~14r~~, 16, and 21 of the Michigan occupational safety and health act, 1974 PA 154, MCL ~~408.1014r~~, 408.1016, and 408.1021, and Executive Reorganization Order Nos. 1996-2, 2003-1, 2008-4, ~~and 2011-4,~~ **and 2019-3**, MCL 445.2001, 445.2011, 445.2025, ~~and 445.2030,~~ **and 125.1998**)

R 408.17301, R 408.17305, R 408.17307, R 408.17309, R 408.17310, R 408.17312, R 408.17314, and R 408.17320 of the Michigan Administrative Code ~~is~~ **are** amended, R 408.17313 is added, and R 408.17302, R 408.17303, R 408.17315, R 408.17316, R 408.17317, and R 408.17318 are rescinded, as follows:

~~GENERAL INDUSTRY SAFETY AND HEALTH STANDARD~~
PART 73. FIRE BRIGADES

R 408.17301 Scope, **adoption, and referenced standards.**

Rule 7301. (1) 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 firefighting operations.

(2) **The following National Fire Protection Association (NFPA) standards are adopted by reference in these rules and are available from the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts, 02169-7471, or via the internet at the following website: www.nfpa.org, at a cost as of the time of adoption of these amendments, as stated in these rules:**

(a) NFPA 1971: “Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting,” 1997 edition. Cost: \$79.50.

(b) NFPA 1971: “Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting,” 2013 edition. Cost: \$74.00.

(c) NFPA 1981: “Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services,” 2007 edition. Cost: \$63.50.

(d) NFPA 1982: “Standard on Personal Alert Safety Systems (PASS),” 2007 edition. Cost: \$68.50.

(3) The standards adopted in these rules are also available for inspection at the Michigan Department of Labor and Economic Opportunity, MIOSHA Standards and FOIA Section, 530 W. Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(4) Copies of the standards adopted in these rules may be obtained from the publisher or may be obtained from the Michigan Department of Labor and Economic Opportunity, MIOSHA Standards and FOIA Section, 530 W. Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus \$20.00 for shipping and handling.

~~R 408.17302-Adopted and referenced standards~~**Rescinded.**

~~—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/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 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 25.60051 to R 325.60052.~~

~~R 408.17303-Definitions; A to E.~~**Rescinded.**

~~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.~~

R 408.17305 Definitions; ~~FE~~ to I.

Rule 7305. **(1) “Education” means the process of imparting knowledge or skill through systemic instruction. Education does not require formal classroom instruction.**

(12) “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 firefighting operations.

~~(23) “Flame resistance” means the property of materials, or combinations of component materials, that retards ignition and restricts the spread of flame.~~ **“Foam containing PFAS” means firefighting foam containing intentionally added perfluoroalkyl or polyfluoroalkyl substance.**

~~(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 portion 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 without the need for protective ensemble or breathing apparatus.

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

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 fighting 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.~~

(1) “PFAS” means a perfluoroalkyl or polyfluoroalkyl substance.

~~(4)(2) “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.~~ **“Protective ensemble” means multiple**

elements of clothing and equipment designed to provide a degree of protection for employees from adverse exposures to the inherent risks of structural firefighting.

R 408.17309 Definitions; Q S to V T.

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.~~ **“Small hose system” means a system of hose ranging in diameter from 5/8 ” (1.6 cm) up to 1 ½” (3.8 cm) which is for the use of employees and which provides a means for the control and extinguishment of incipient stage fires.**

(2) **“Structural firefighting” means activities of rescue, fire suppression, or property conservation inside or outside buildings, structures, equipment, vehicles, vessels, or like properties that are involved in a fire beyond the incipient stage.**

~~(2)~~(3) **“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.~~

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 or written policy shall be available for inspection by the director of the department of licensing and regulatory affairs~~ **labor and economic opportunity or his or her authorized representative** and by employees or ~~their designated~~ **his or her authorized representatives.**

(2) The employer shall ~~assure~~**ensure** that employees who are expected to do structural firefighting 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 that is more comprehensive than that provided to the general membership of the fire brigade. **Training and education records must be maintained and be made available for inspection by the director of the**

department of labor and economic opportunity or his or her authorized representative and by an employee or his or her authorized representative.

~~(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)(4) An employer shall ~~assure~~**ensure** 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 firefighting shall be provided with an education session or training at least quarterly.

(8)(5) 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)(6) 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.

R 408.17312 Firefighting equipment.

Rule 7312. (1) The employer shall maintain and inspect, at least annually, firefighting equipment to ~~assure~~**ensure** 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.~~ **Inspection records must be maintained for a minimum period of 24 months for firefighting equipment.**

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

R 408.17313 Proper use, handling, storage, and containment of firefighting foam concentrate.

Rule 17313. (1) An employer must follow the specific, manufacturer provided safety data sheets (SDSs) for all firefighting foam concentrate that employees may be exposed to and follow best practices regarding the proper use, handling, and storage information.

(2) An employer must prevent intentionally added PFAS containing foam concentrate or foam solution from entering ground water, surface water, or storm drains, as soon as possible. Manual containment strategies used for spills involving a hazardous liquid should be employed. These include blocking storm drains to prevent the contaminated foam/water solution from entering the wastewater system or the environment. Defensive tactics such as damming, diking, and diverting should be employed to get the foam/water solution to an area suitable for containment until it can be removed in accordance with local, state, and federal regulations. Immediately after the end of a fire or other incident at which an organized fire brigade uses firefighting foam containing intentionally added PFAS, the employer must report the incident to the Michigan pollution emergency alert system.

(3) An employer must dispose of materials contaminated by foam containing PFAS pursuant to the natural resources and environmental protection act, 1994 PA 451, MCL 324.101 to 324.90106.

(4) An employer must ensure the decontamination of an employee's body and equipment as follows:

(a) Post fire response contaminated personal protective equipment (PPE) must be decontaminated as soon as practical. A mild detergent, with a pH of not less than 6 and not greater than 10.5, must be used. The use of chlorine bleach, chlorinated solvents, or other organic solvents is not permitted. Follow manufacturer's recommended cleaning procedures.

(b) An employee's exposed skin, including the neck, face, and hands, must be decontaminated, post fire response and whenever exposed to firefighting foam. Employees must wash exposed skin with a mild soap and rinse thoroughly with water.

(5) An employer must prohibit the use of firefighting foam concentrate containing intentionally added PFAS, by an employee for training purposes.

(6) An employer must prohibit the use of firefighting foam concentrate containing intentionally added PFAS, by an employee, for equipment calibration purposes, unless required by law or the facility where the calibration takes place has implemented appropriate measures.

R 408.17314 Personal protective equipment—~~generally for structural firefighting.~~

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

(2) An employer shall provide **a protective ensemble**, 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, a~~An employer shall ~~assure~~**ensure** that all fire brigade members wear the **protective ensemble** when performing ~~interior~~ structural firefighting. ~~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~~**ensure** that ~~the~~ **protective ensemble** protects the head, body, and extremities, **from hazards that are present or are likely to be present** and consists of at least ~~the~~ all of the following components:

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

(4) **When performing interior structural firefighting, the protective ensemble must meet or exceed the requirements of NFPA 1971: “Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting,” 1997 edition, as adopted in R 408.17301. Effective January 1, 2025, when performing interior structural firefighting, the protective ensemble must meet or exceed the requirements of NFPA 1971: “Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting,” 2013 edition, as adopted in R 408.17301.**

(5) **The protective ensemble must be inspected and cleaned after each use.**

(6) **An employer shall implement procedures for the inspecting and servicing of the protective ensemble according to the manufacturer’s recommendations.**

(7) **An employer shall implement a procedure for determining whether the protective ensemble must be repaired or replaced. All repairs must be made in compliance with the manufacturer’s recommendations.**

R 408.17315—~~Foot and leg protection.~~ **Rescinded.**

~~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.~~

R 408.17316—~~Body protection.~~ **Rescinded.**

~~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.~~

R 408.17317. ~~Hand protection.~~ **Rescinded.**

~~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.~~

R 408.17318. ~~Head, eye, and face protection.~~ **Rescinded.**

~~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.~~

R 408.17320 Respiratory protection devices.

Rule 7320. (1) **Effective January 1, 2025, when performing interior structural firefighting** ~~A~~an employer shall ensure that respirators are provided to, and used by, each fire brigade member, and that the respirators meet the requirements of any self-contained breathing apparatus currently in use must meet or exceed the requirements of NFPA 1981: “Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services,” 2007 edition, as adopted in R 408.17301. ~~Occupational Health Standard Part 451. “Respiratory Protection,” as referenced in R 408.17302, for each employee required to use a respirator.~~

(2) **Effective January 1, 2025, an employer shall provide and enforce the use of a Personal Alert Safety Systems (PASS) device to each employee utilizing a self-**

contained breathing apparatus when performing interior structural firefighting. PASS devices shall meet or exceed the requirements of NFPA 1982: "Standard on Personal Alert Safety Systems (PASS)," 2007 edition, as adopted in R 408.17301.

~~(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.~~