

11 Core Elements

These recommendations come from the Minnesota OSHA standards, providing Minnesota fire departments multiple options to design an annual training program that fits their needs and requirements. Twenty-four hours of continuing annual training is recommended in any combination of the following 11 Core Elements.

Each of the recommended 11 Core Elements has been further developed to include subgroups that include:

- 1. Safety and Protective Equipment**
 - a. A culture of a safe working environment
 - b. 16 life safety initiatives
 - c. PPE checks
 - d. Bloodborne pathogens
 - e. Proper PPE for the work place

- 2. Chemistry of Fire and Fire Behavior**
 - a. Fire Behavior
 - b. Building Construction
 - c. Fire Tactics/Strategies
 - d. Thermal imager
 - e. Foam
 - f. Extinguishers

- 3. Self-Contained Breathing Apparatus (SCBA)**
 - a. Checks/ recharge SCBA cylinder
 - b. Donning/doffing
 - c. PASS devices
 - d. Use/Care
 - e. Confidence course

- 4. Fire Streams**
 - a. Attack below grade
 - b. Attack ground grade
 - c. Attack above grade

- 5. Hose**
 - a. Types
 - b. Loads/Lays
 - c. Coupling drill
 - d. Deployment techniques

- 6. Pumping Fire Apparatus**
 - a. Responding (CEVO or Emergency Vehicle Operations)
 - b. Pumping
 - c. Drafting
 - d. Supply to appliances

- 7. Ladders**
 - a. Ladders
 - b. Deployment
 - c. Safety
 - d. Aerials

- 8. Rescue**
 - a. Firefighter
 - i. Search
 - ii. Self-rescue
 - iii. Mayday operations
 - iv. Rapid intervention
 - b. Extrication
 - i. Auto recognition
 - ii. Highway safety
 - iii. Tools
 - iv. Airbags
 - v. Other cutting devices
 - vi. Disentanglement
 - vii. Other machinery
 - viii. Farm equipment or Mining equipment
 - c. Ropes
 - i. Rope types
 - ii. Knots
 - iii. Use
 - d. First Aid
 - i. First Aid
 - ii. CPR

- 9. Forcible Entry**
 - a. Tool Identification
 - b. Forcible entry
 - i. Door
 - ii. Window
 - iii. Wall
 - iv. Other

- 10. Ventilation**
 - a. Horizontal
 - b. Vertical
 - c. Mechanical

- 11. Administrative/Command**
 - a. Professional Development
 - b. Financial Management
 - c. Human Resources
 - d. Incident Command System

Minimum Training for Minnesota Firefighters to Meet Federal and State Requirements

INITIAL TRAINING

The General Duty Clause

[MN Statute 182.653 Subd. 2]

Each employer shall furnish to each of its employees conditions of employment and a place of employment free from recognized hazards that are causing or are likely to cause death or serious injury or harm to its employees.

Hazardous Waste Operations and Emergency Response

[29 CFR 1910.120 (e)(1)(ii)]

Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

Hazardous Materials Awareness (3 hours) and Infectious Disease Control (3 hours)

1. *Hazardous Materials First Responder Awareness Level (3 hours)*
2. *Communicable Disease Risk Exposure and Prevention of the Transmission of Bloodborne and Airborne Pathogens for Emergency Responders (3 hours)*

This orientation course has been developed to assist you in comprehension of the OSHA requirement. It does not supplant the employers' responsibility to provide training necessary to be in full compliance. MN OSHA recommends the "operational level" course for all firefighters who will take action beyond identification of the incident.

[29 CFR 1910.120(q)(6)(i)]

[29 CFR 1910.134(g)]

[29 CFR 1910.1030(g)(2)(i through vi)]

Fire Brigades

[29 CFR 1910.156 (c)(1)]

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.

Confined Space Entry Awareness and Employee Right To Know (3 hours)

1. *Permit-required Confined Space Entry Awareness* – This course is designed to familiarize the student with an understanding of the OSHA requirements. Additional training is needed to comply with Section (k) of 1910.146 and 5207.0300 for construction activities.
2. *Department of Labor and Industry Employee Right To Know Standards Chapter 5206*

This orientation course has been developed to assist you in comprehension of the OSHA requirement. It does not supplant the employers' responsibility to provide training necessary to be in full compliance.

[29 CFR 1910.146(g)(1)]

[MN Rule Chapter 5206.0700(G)(1)(4)]

[29 CFR 1910.1200 (h) (3) (iv) Global Harmonization]

Basic Firefighting Course – NFPA 1001

(This course meets the requirements for Minnesota voluntary certification and/or licensure)

To include, but not limited to, the following subjects from NFPA 1001 standards: Firefighter Personal Protective Equipment and SCBA; Firefighter Orientation and Safety; Implementing ICS; Fire Behavior; Ladders; Forcible Entry Tools and Construction Techniques; Rescue and Extrication; Building Search and Victim Removal; Hose Tools, Appliances, Coupling, Loading, Rolling, Lays, Carries; Advancing Water Fire Streams; Ventilation; Fire Control Classes; Vehicle and Wildland Fire Control: Live Burn; Salvage and Overhaul; Firefighter Survival, and RIT.

[29 CFR 1910.156(c)(1)]

[29 CFR 1910.134(e)(5)]

[29 CFR 1910.157(g)(1)]

[29 CFR 1910.132]

First Responder Operational Level (24 hours)

1. *Hazardous Materials for the First Responder (24 hours)*

Any firefighter who remains at the scene and is allowed to take minimal defensive action during an incident involving hazardous materials MUST be trained to this level.

[29 CFR 1910.120(q)(3)(ii)] as per [29 CFR 1910.120(q)(3)(i)]

[29 CFR 1910.120(q)(6)(ii)] as per [29 CFR 1910.120(q)(6)(v)]

Respiratory Protection

[29 CFR 1910.134 (a)(2)]

A respirator shall be provided to each employee when such equipment is necessary to protect the health of such employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protection program, which shall include the requirements outlined in paragraph (c) of this section. The program shall cover each employee required by this section to use a respirator.

Practices for Respirator Protection

[ANSI Z88.2-1992]

Sec. 8.2 Training frequency

Each respirator wearer shall be trained upon initial assignment and be retrained once every 12 months.

Employee Right to Know

[MN Statute 182.653 Subd. 4b]

- (a) Prior to an employee's initial assignment to a workplace where the employee may be routinely exposed to a hazardous substance or harmful physical agent, the employer shall provide training concerning the hazardous substance or harmful physical agent. The employer shall provide additional instruction whenever the employee may be routinely exposed to any additional hazardous substance or harmful physical agent. The term "routinely exposed" includes the exposure of an employee to a hazardous substance when assigned to work in an area where a hazardous substance has been spilled.

- (d) **Training to update the information required to be provided under this subdivision shall be repeated at intervals no greater than one year.**

INITIAL TRAINING

Bloodborne Pathogens

[29 CFR 1910.1030(g)(2)]

Information and training

(i) The employer shall train each employee with occupational exposure in accordance with the requirements of this section. Such training must be provided at no cost to the employee and during working hours. The employer shall institute a training program and ensure employee participation in the program.

(ii) Training shall be provided as follows:

(A) At the time of initial assignment to tasks where occupational exposure may take place;

(B) At least annually thereafter.

(iv) Annual training for all employees shall be provided within one year of their previous training.

(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

Fire Brigades

[29 CFR 1910.156(c)(2)]

The employer **shall** assure that training and education is conducted frequently enough to assure 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.** (See 11 Core Elements)

Employee Right to Know

[MN Statute 182.653 Subd. 4b]

- (b) Prior to an employee's initial assignment to a workplace where the employee may be routinely exposed to a hazardous substance or harmful physical agent, the employer shall provide training concerning the hazardous substance or harmful physical agent. The employer shall provide additional instruction whenever the employee may be routinely exposed to any additional hazardous substance or harmful physical agent. The term "routinely exposed" includes the exposure of an employee to a hazardous substance when assigned to work in an area where a hazardous substance has been spilled.
- (e) **Training to update the information required to be provided under this subdivision shall be repeated at intervals no greater than one year.**

Employee Right to Know Standards

[MN Rules 5206.0700(G)(4)]

Training updates must be repeated at intervals of not greater than one year. Training updates may be brief summaries of information included in previous training sessions.

Bloodborne Pathogens

[29 CFR 1910.1030(g)(2)]

Information and training

(i) The employer shall train each employee with occupational exposure in accordance with the requirements of this section. Such training must be provided at no cost to the employee and during working hours. The employer shall institute a training program and ensure employee participation in the program.

(ii) Training shall be provided as follows:

(C) At the time of initial assignment to tasks where occupational exposure may take place;

(D) At least annually thereafter.

(iv) Annual training for all employees shall be provided within one year of their previous training.

(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

Practices for Respirator Protection

[ANSI Z88.2-1992]

Sec. 8.2 Training frequency

Each respirator wearer shall be trained upon initial assignment and be retrained once every 12 months.

Respiratory Protection

[29 CFR 1910.134]

(c) Respiratory Protection Program.

This paragraph requires the employer to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator. In addition, certain program elements may be required for voluntary use to prevent potential hazards associated with the use of the respirator.

(g) Use of Respirators.

This paragraph requires employers to establish and implement procedures for the proper use of respirators. These requirements include prohibiting conditions that may result in facepiece seal leakage, preventing employees from removing respirators in hazardous environments, taking actions to ensure continued effective respirator operation throughout the work shift, and establishing procedures for the use of respirators in IDLH atmospheres or in interior structural firefighting situations.

(k)(4)

An employer who is able to demonstrate that a new employee has received training within the last 12 months that addresses the elements specified in paragraph (k)(1)(i) through (vii) is not required to repeat such training provided that, as required by paragraph (k)(1), the employee can demonstrate knowledge of those element(s). **Previous training not repeated initially by the employer must be provided no later than 12 months from the date of the previous training.**

Respiratory Protection

[29 CFR 1910.134 App A]

Appendix A to § 1910.134: Fit Testing Procedures (Mandatory)

Part I. OSHA-Accepted Fit Testing Protocols

The employer shall conduct fit testing using the following procedures. The requirements in this appendix apply to all OSHA-accepted fit test methods, both QLFT and QNFT.

Hazardous Waste Operations and Emergency Response**[29 CFR 1910.120 (q)]****(6) Training**

Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders, those hired after the effective date of this standard, shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following paragraphs:

(i) First Responder Awareness level

First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency.

(ii) First Responder Operations level

First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight (8) hours of training or have had sufficient experience to objectively demonstrate competency.

(iii) Hazardous Materials Technician

Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least twenty-four (24) hours of training equal to the first responder operations level and in addition have competency.

(iv) Hazardous Materials Specialist

Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities. Hazardous materials specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency.

(v) On-Scene Incident Commander

Incident commanders, who will assume control of the incident scene beyond the first responder awareness level, shall receive at least twenty-four (24) hours of training equal to the first responder operations level and in addition have competency.

(7) Trainers

Trainers who teach any of the above training subjects shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the U.S. National Fire Academy, or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

ANNUAL REFRESHER TRAINING

(8) Refresher Training

(i) Those employees who are trained in accordance with paragraph (q)(6) of this section shall receive annual refresher training of sufficient content and duration to maintain their competencies, or **shall demonstrate competency in those areas at least yearly.**

(ii) A statement shall be made of the training or competency, and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

Conclusion

The purpose of this document is to inform and help departments obtain the needed information to keep their firefighters safe and well trained.

All the state OSHA requirements are department-dependent, based upon level of service. The 11 Core Elements will provide 24 hours annually in any combination, according to the department's needs.

Non-traditional classes and/or expenses maybe available for reimbursement when the 24 hours of firefighter training has been completed in the 11 Core Elements.