

NFPA® 1410

Standard on Training for Emergency Scene Operations

2015 Edition



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NFPA® 1410

Standard on

Training for Emergency Scene Operations

2015 Edition

This edition of NFPA 1410, *Standard on Training for Emergency Scene Operations*, was prepared by the Technical Committee on Fire Service Training. It was issued by the Standards Council on November 11, 2014, with an effective date of December 1, 2014, and supersedes all previous editions.

This edition of NFPA 1410 was approved as an American National Standard on December 1, 2014.

Origin and Development of NFPA 1410

The first edition of this standard on initial fire attack was officially adopted as NFPA 197 at the 1966 NFPA Annual Meeting. Prepared by the Committee on Fire Service Training, it had been tentatively adopted at the 1964 Annual Meeting. The 1966 edition was revised in 1979. The 1995 edition included the results of comprehensive and extensive field tests that were performed to validate the recommended maximum times for fireground evolutions in Appendix A. In deliberations during development of the 1995 edition of this standard, the committee did not choose the “best” times recorded in the field tests, but chose times that it felt were reasonably achieved with an appropriate effort of organization and training.

A new Chapter 7, “Required Performance for Truck Company Operations,” was included in the 2000 edition of the standard.

The 2005 edition of this standard featured changes to the previous edition’s numbering of chapters and paragraphs to reflect requirements in the 2004 edition of the *Manual of Style for NFPA Technical Committee Documents*.

The 2010 edition added Chapter 10, “Required Performance for Rapid Intervention Crews (RIC)”, for consistency with requirements found in NFPA 1710 and NFPA 1720.

For the 2015 edition, the committee has removed the word *initial* from the document since evolutions can happen after initial arrival. They added a new chapter, “Evolution Preparation” (Chapter 4), to provide a basic overview of fire behavior and how it relates to each evolution. Also added was a new chapter on incident command (Chapter 6). Ladder company operations in Chapter 11 were changed, as others may perform some of those functions.



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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for all fire service training techniques, operations, and procedures to develop maximum efficiency and proper utilization of available personnel. Such activities can include training guides for fire prevention, fire suppression, and other missions for which the fire service has responsibility.



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A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, the complete title and edition of the source documents for extracts in mandatory sections of the document are given in Chapter 2 and those for extracts in informational sections are given in Annex C. Extracted text may be edited for consistency and style and may include the revision of internal paragraph references and other references as appropriate. Requests for interpretations or revisions of extracted text shall be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex C.

Chapter 1 Administration

1.1 Scope.

1.1.1* This standard contains the context and minimum requirements for evaluating training for fire suppression and rescue procedures used by fire department personnel engaged in emergency scene operations.

1.1.2 This standard specifies basic evolutions that shall be adapted to local conditions and serves as a standard mechanism for the evaluation of minimum acceptable performance during training for fire suppression and rescue activities.

1.2 Purpose.

1.2.1* This document is a training standard designed to provide fire departments with an objective method of measuring performance for fire suppression and rescue procedures using available personnel and equipment.

1.2.2 Nothing herein is intended to restrict any jurisdiction from exceeding these minimum requirements.

1.3 Units. In this standard, values for measurements are followed by an equivalent in parentheses, but only the first stated value should be regarded as the requirement, because the equivalent values might be approximate.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, 2013 edition.

NFPA 1801, *Standard on Thermal Imaging for the Fire Service*, 2013 edition.

NFPA 1964, *Standard for Spray Nozzles*, 2013 edition.

NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2013 edition.

NFPA 1981, *Standard on Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services*, 2013 edition.

NFPA 1982, *Standard on Personal Alert Safety Systems (PASS)*, 2013 edition.

2.3 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections.

NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2013 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*, 2013 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System and Command Safety*, 2014 edition.

NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, 2014 edition.

NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, 2010 edition.

NFPA 1901, *Standard for Automotive Fire Apparatus*, 2009 edition.

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Shall. Indicates a mandatory requirement.

3.2.4 Should. Indicates a recommendation or that which is advised but not required.

3.2.5 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.



3.3 General Definitions.

3.3.1 Apparatus.

3.3.1.1 Aerial Fire Apparatus. A vehicle equipped with an aerial ladder, elevating platform, or water tower that is designed and equipped to support fire fighting and rescue operations by positioning personnel, handling materials, providing continuous egress, or discharging water at positions elevated from the ground. [1901, 2009]

3.3.1.2 Mobile Water Supply Apparatus (Tanker, Tender). A vehicle designed primarily for transporting (pickup, transporting, and delivering) water to fire emergency scenes to be applied by other vehicles or pumping equipment. [1901, 2009]

3.3.2 Backdraft. A deflagration resulting from the sudden introduction of air into a confined space containing oxygen deficient products of incomplete combustion.

3.3.3* Combustible. Capable of burning, generally in air under normal conditions of ambient temperature and pressure, unless otherwise specified.

3.3.4 Company. The basic fire-fighting organizational unit staffed by various grades of fire fighters under the supervision of an officer and assigned to one or more specific pieces of apparatus.

3.3.4.1 Engine Company. A group of fire fighters who work as a unit and are equipped with one or more pumping engines that have rated capacities of 750 gpm (2840 L/min) or more.

3.3.4.2 Rescue Company. A group of fire fighters who work as a unit and are equipped with one or more rescue vehicles.

3.3.4.3 Truck Company. A group of fire fighters who work as a unit and are equipped with one or more pieces of aerial fire apparatus.

3.3.5 Conduction. Heat transfer to another body or within a body by direct contact.

3.3.6 Convection. Heat transfer by circulation within a medium such as a gas or a liquid.

3.3.7 Decay Stage. The stage of fire development within a structure characterized by either a decrease in the fuel load or available oxygen to support combustion, resulting in lower temperatures and lower pressure in the fire area.

3.3.8 Deflagration. Propagation of a combustion zone at a velocity that is less than the speed of sound in the unreacted medium.

3.3.9* Door Control. The process of ensuring the entrance door providing access to the fire area is controlled and closed as much as possible after the search team enters without the protection of a hose line.

3.3.10 Effective Operation. The accomplishment of or ability to accomplish the intended task.

3.3.11 Effective Stream. A fire stream that has achieved and sustained the proper flow.

3.3.12 Engine. A fire department pumper that has a rated capacity of 750 gpm (2840 L/min) or more.

3.3.13 Evolution. A set of prescribed actions that result in an effective fireground activity.

3.3.14 Fire Growth Potential. The potential size or intensity of a fire based on the available fuel load.

3.3.15* Flameover (Rollover). The condition in which unburned fuel (pyrolysate) from the originating fire has accumulated in the ceiling layer to a sufficient concentration (i.e., at or above the lower flammable limit) that it ignites and burns. Flameover can occur without ignition of or prior to the ignition of other fuels separate from the origin.

3.3.16 Flashover. A transition phase in the development of a compartment fire in which surfaces exposed to thermal radiation reach ignition temperature more or less simultaneously and fire spreads rapidly throughout the space, resulting in full room involvement or total involvement of the compartment or enclosed space.

3.3.17* Flow Path. The movement of heat and smoke from the higher pressure within the fire area towards the lower pressure areas accessible via doors, window openings, and roof structures.

3.3.18 Flow Path Control. The tactic of controlling or closing ventilation points to limit additional oxygen into the space thereby limiting fire development, heat release rate, and smoke production, and to control the movement of the heat and smoke conditions out of the fire area to the exterior and to other areas within the building.

3.3.19 Fuel-Limited Fire. A fire in which the heat release rate and fire growth are controlled by the characteristics of the fuel because there is adequate oxygen available for combustion.

3.3.20* Fuel Load. The total quantity of combustible contents of a building, space, or fire area, including interior finish and trim, expressed in terms of heat release rate.

3.3.21* Fully Developed Stage. The stage of fire development where heat release rate has reached its peak within a compartment.

3.3.22 gpm. Gallons per minute.

3.3.23 Growth Stage. The stage of fire development where the heat release rate from an incipient fire has increased to the point where heat transferred from the fire and the combustion products are pyrolyzing adjacent fuel sources and the fire begins to spread across the ceiling of the fire compartment (rollover).

3.3.24* Heat Release Rate. The rate at which energy is generated by the burning of a fuel and oxygen mixture. As the heat release rate increases, the heat, smoke production, and pressure within the area will increase and spread along available flow paths toward low-pressure areas (such as open doors, windows, and roof openings).

3.3.25 Immediately Dangerous to Life or Health (IDLH). Any condition that would pose an immediate or delayed threat to life, cause irreversible adverse health effects, or interfere with an individual's ability to escape unaided from a hazardous environment. [1670, 2014]

3.3.26 Incident Action Plan. The objectives reflecting the overall incident strategy, tactics, risk management, and member safety that are developed by the incident commander. Incident action plans are updated throughout the incident. [1500, 2013]

3.3.27 Incident Commander (IC). The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and the release of resources. [472, 2013]

3.3.28 Incident Management System (IMS). A system that defines the roles and responsibilities to be assumed by responders and the standard operating procedures to be used in the management and direction of emergency incidents and other functions. [1561, 2014]

3.3.29 Incipient Stage. The early stage of fire development where the fire's progression is limited to a fuel source and the thermal hazard is localized to the area of the burning material.

3.3.30 Initial Standby Team (IST). A dedicated crew of a minimum of two fire fighters, located outside the IDLH, assigned to rescue injured or trapped fire fighters prior to the assignment of a rapid intervention crew (RIC).

3.3.31 kPa. Kilopascals.

3.3.32 Large-Diameter Hose. A hose 3.5 in. (89 mm) or larger that is designed to move large volumes of water to supply master stream appliances, portable hydrants, manifolds, standpipe and sprinkler systems, and fire department pumpers from hydrants and in relay.

3.3.33 Line. One or more lengths of connected fire hose.

3.3.33.1 Attack Line. A hose line used primarily to apply water directly onto a fire and operated by a sufficient number of personnel so that it can be maneuvered effectively and safely.

3.3.33.2 Backup Line. An additional hose line used to reinforce and protect personnel in the event the initial attack proves inadequate.

3.3.33.3 Initial Attack Line. The first hose stream placed in service by a company at the scene of a fire in order to protect lives or to prevent further extension of fire while additional lines are laid and placed in position.

3.3.33.4* Leader Line. A hose line supplying one or more smaller lines, as in a wyed line.

3.3.33.5 Preconnected Line. A discharge hose line already attached to an engine outlet.

3.3.33.6 Supply Line. One or more lengths of connected fire hose, also called a leader line, used to provide water to wyed lines or to the intake of a pump.

3.3.34 L/min. Liters per minute.

3.3.35 psi. Pounds per square inch gauge.

3.3.36 Pyrolysate. Product of decomposition through heat; a product of a chemical change caused by heating.

3.3.37* Pyrolysis. The breakdown of fuels such as wood and foam plastics into their basic compound when subjected to heat.

3.3.38 Radiation. Heat transfer by way of electromagnetic energy.

3.3.39* Rapid Intervention Crew (RIC). A dedicated crew of fire fighters who are assigned for rapid deployment to rescue lost or trapped members. [1710, 2010]

3.3.40 Rescue. Those activities directed at locating endangered persons at an emergency incident, removing those persons from danger, treating the injured, and providing for transport to an appropriate health care facility. [1500, 2013]

3.3.41 Rescue Vehicle. A special vehicle, also known as a heavy rescue or squad, equipped with tools and equipment to perform one or more types of special rescue such as building collapse, confined space, high angle, vehicle extrication, and water rescue.

3.3.42 Residual Pressure. The pressure that exists in the distribution system, measured at the residual hydrant at the time the flow readings are taken at the flow hydrants.

3.3.43* Situational Awareness. The ongoing activity of assessing what is going on around you during the complex and dynamic environment of a fire incident.

3.3.44 Size-Up. The process of gathering and analyzing information to help fire officers make decisions regarding the deployment of resources and the implementation of tactics.

3.3.45* Smoke. The combination of airborne solid particulates, liquid particulates, and gases emitted when a material undergoes pyrolysis or combustion.

3.3.46 Truck. A common fire service term for aerial fire apparatus.

3.3.47* Vent, Entry, Isolate, Search (VEIS). The approved tactic for entering a structure through an opening (door or window) to search an area for the location of the fire or to locate possible victims.

3.3.48* Ventilation. The controlled and coordinated removal of heat and smoke from a structure, replacing the escaping gases with fresh air.

3.3.48.1 Horizontal Ventilation. The opening or removal of windows or doors on any floor of a fire building to create flow paths for fire conditions.

3.3.48.2 Mechanical Ventilation. The use of mechanical fans to accelerate air flow or reverse air flow to assist in the movement of smoke throughout a structure.

3.3.48.3 Vertical Ventilation. The vertical venting of structures involving the opening of bulkhead doors, skylights, scuttles, and roof cutting operations to release smoke and heat from inside the fire building.

3.3.49 Ventilation-Controlled Fire. A fire in which the heat release rate or growth is controlled by the amount of air available to the fire.

3.3.50 Ventilation for Extinguishment. The controlled and coordinated ventilation tactic that should coincide with the engine company extinguishment of the fire.

3.3.51 Ventilation for Search. The controlled and coordinated ventilation tactic performed to facilitate the movement of a firefighter into an area to conduct a search for victims.

3.3.52* Ventilation-Induced Flashover. A flashover initiated by the introduction of oxygen into a preheated, fuel-rich (smoke filled), oxygen-deficient area.

3.3.53 Ventilation-Limited Fire. A fire in which the heat release rate and fire growth are regulated by the available oxygen within the space.

3.3.54 Ventilation Profile. The appearance of the fire building's ventilation points showing the flow paths of heat and smoke out of the structure as well as any air movement into the structure.

3.3.55 Ventilation Tactics. The coordinated and controlled opening of ventilation points in a structure to facilitate fire operations.

Chapter 4 Evolution Preparation

4.1* General. The initial responding crew has the responsibility of sizing up the incident, assessing the hazard, determining the risk benefit of potential initial actions, and then implementing the chosen tactics.

4.1.1 The company members undergoing evaluation shall receive a briefing and evaluation to review information essential to the conduct of effective initial emergency scene operations.

4.2 Fire Behavior.

4.2.1* Company members shall be able to describe the components of a fire and the definition of a fire.

4.2.2* Company members shall be able to describe the stages of fire growth for a fuel-limited fire.

4.2.3* Company members shall be able to describe the stages of fire growth for a ventilation-limited fire.

4.2.4 Company members shall be able to describe the conditions needed for a flashover to occur.

4.2.5* Company members shall be able to describe the three mechanisms of heat transfer — conduction, convection, and radiation.

4.3 Protective Personnel Ensemble.

4.3.1* Company members shall be able to describe the components of their protective clothing and equipment required for use during the operational evolutions.

4.3.2* Company members shall be able to describe the capabilities and limitations of their protective clothing and equipment based on the following test standards: NFPA 1801, NFPA 1971, NFPA 1981, and NFPA 1982.

4.4 Fire Control.

4.4.1* Company members shall be able to describe the need for size-up.

4.4.2* Company members shall be able to describe the need for coordination between ventilation, rescue, and suppression operations.

4.4.3* Company members shall be able to describe the need for communication as part of emergency scene operations.

4.5* Training in Context.

4.5.1 Training evolutions shall occur in the context and sequence of field tactical operations; size-up, locate the fire, identify the flow path, cool to reduce the thermal hazard, and extinguish the fire.

4.5.1.1 Where the department has thermal imagers (TIs), company members shall be trained in their proper use and shall demonstrate the ability to use TIs during training as described in 4.5.1.

4.5.2 Rescue and salvage operations shall occur at any point in the sequence of operations.

Chapter 5 Methods of Evaluation

5.1 Standard Evolutions.

5.1.1* The evolutions specified in this standard shall be used to measure the initial capability of a department's first responding unit(s) and personnel.

5.1.2 The evolutions used shall be those the department normally uses in its regular fire suppression and rescue operations.

5.1.3 The hose layouts and hydrant connections used shall provide the flow necessary to supply the requirements of each evolution, and correct hose connections shall be made between the hydrant(s) or other water source(s) and the engine(s) and inlets.

5.1.4 The engine and truck company operations shall provide a mechanism to measure the performance of routine tasks that are required to support an effective fire suppression operation in a structure.

5.2 Hose Loads and Layouts.

5.2.1 Hose shall be loaded in the manner utilized by the department, and hose lays and carries used during the evolutions shall be those normally used by the department.

5.2.2 The initial attack lines shall be preconnected to an engine outlet, supplied through a wye from another line, or connected to an engine outlet at the scene.

5.2.3* Direct hydrant streams shall not be used unless the desired flow is available at the hydrant with a residual pressure of 100 psi (700 kPa) or greater.

5.2.4 Depending on the size of the hose lines to be used and the quantity of water to be delivered, the number of personnel shall be assigned to ensure the safety of all personnel involved, and the number shall be in compliance with Section 8.5 of NFPA 1500.

5.2.5 A minimum of two fire fighters shall be used on each hose line to keep interior attack lines under control.

5.3 Ground Ladders.

5.3.1 Ladders shall be loaded or carried on the apparatus in the manner utilized by the department, and ladder raises and carries used during the evolutions shall be those normally used by the department.

5.3.2* Depending on the size of the ladder to be used and the evolution to be performed, the correct number of personnel shall be assigned to ensure the safety of all personnel involved.

Chapter 6 Incident Command for Emergency Scene Operations

6.1* Command. The command function of the incident management system shall be established before emergency mitigation commences.

6.2* Incident Command. The incident commander shall have the overall responsibility for the deployment of resources to mitigate the emergency.

6.3 NIMS. The system used to manage the incident shall be compliant with the guidance established by the Incident Command System (ICS) of the National Incident Management System (NIMS) and the AHJ.

Chapter 7 Logistics

7.1 Facilities.

7.1.1 Evolutions shall be conducted in an area of sufficient size so that supply hose can be laid to or from the water source and attack lines can be laid from an engine or wye.

7.1.2 Where evolutions are not conducted at the fire department training facility or in another controlled area, non-fire department vehicular and pedestrian traffic shall be excluded from the area or shall be under the control of authorized traffic control persons.

7.1.3 Evolutions that involve the use of ladders shall be performed in an area free of overhead power lines and other obstructions.

7.2 Equipment and Personnel.

7.2.1 Clothing.

7.2.1.1 All personnel involved in evolutions shall wear approved protective clothing and shall use approved equipment for their respective functions.

7.2.1.2 All personnel participating in extending or operating handlines or extending support lines or who are involved in other operational functions of the evolutions shall wear full protective clothing, equipment, and self-contained breathing apparatus (SCBA) as specified in Sections 7.2 and 7.10 of NFPA 1500.

7.2.2* In addition to the requirements set forth in 7.2.1, the company officer shall ensure that the following are accomplished in interior structural fires:

- (1) At least two fire fighters enter the immediately dangerous to life and health (IDLH) atmosphere and remain in visual or voice contact with each other at all times.
- (2)*Prior to the assignment of a rapid intervention crew, an incident safety team is established.
- (3) All fire fighters engaged in interior structural fire fighting use SCBA.

7.2.3* All drivers/operators of fire department vehicles participating in evolutions shall comply with the requirements of Section 6.2 of NFPA 1500.

7.2.4 All personnel riding on fire department vehicles and participating in evolutions shall comply with the requirements of Section 6.3 of NFPA 1500.

7.2.5* Number of Response Personnel.

7.2.5.1 The number of units and personnel normally assigned to respond on an initial alarm shall report to the evaluator at the assigned area.

7.2.5.2 In volunteer or call departments, the number of personnel utilized shall be limited to the average staffing level that normally responds.

7.2.6* The number of apparatus to be deployed shall not exceed the total belonging to all companies that are normally assigned to respond on the initial alarm.

7.2.7 Nozzles and other equipment used shall be of the type provided on the apparatus.

7.3 Water Supply.

7.3.1 The water supply shall consist of a water source capable of supplying the flow required for operations.

7.3.2 The water supply shall consist of one or more of the following:

- (1) One or more hydrants
- (2) A drafting location
- (3) A water supply apparatus

7.4* Communications.

7.4.1 Communication equipment and methods used by the fire department shall be employed during the evolutions.

7.4.2 Evaluations shall include the effectiveness of communication among members.

Chapter 8 Required Performance for Handlines

8.1 General.

8.1.1* The required performance for handlines shall consist of obtaining a water supply through one or two supply lines, placing one initial attack line into operation, and providing immediate backup with another line.

8.1.2 Handline evolutions shall be performed by the first arriving unit(s), staffed with the average number of personnel that ordinarily respond.

8.1.3* For evolutions involving two or more companies, there shall be a delay of at least 30 seconds between the arrival of each company.

8.2 Required Flow.

8.2.1 The total flow of the required streams shall be a minimum of 300 gpm (1135 L/min).

8.2.2 The initial attack line shall provide a minimum flow of 100 gpm (400 L/min) from the nozzle.

8.2.3 The required flow from the backup line shall be a minimum of 200 gpm (750 L/min).

8.2.4* The evaluator shall determine whether required pressure and flows, in accordance with 8.2.1 through 8.2.3, are provided at each nozzle.

8.2.4.1 Where solid stream nozzles are used, the nozzle pressure shall be at least 50 psi (350 kPa).

8.2.4.2 Where spray nozzles as defined in NFPA 1964 are used, the nozzle pressure shall be at least 100 psi (700 kPa), unless it is designed for operation at a pressure other than 100 psi (700 kPa).

8.2.4.3 Pressures shall be within a range of ± 10 percent.

8.3 Hose Evolutions.

8.3.1 Supply Line.

8.3.1.1 The supply line(s) shall be laid by an engine for a distance of 300 ft (90 m) to or from the water source.

8.3.1.2 Where large-diameter hose is used, a single line shall be permitted.

8.3.2* The initial attack line and backup line shall be advanced by hand for a minimum distance of 150 ft (45 m) before streams are activated.

8.3.3* Where an apparatus water tank supply is used to supply the initial attack line, the backup line shall not be charged until the required water supply is established.

8.4* Handline Operations.

8.4.1 Stream Placement. Company members manning attack lines shall aim the nozzle at the target indicated by the officer, open the nozzle fully, and flow water on the target until the officer requests that the nozzle be closed.