

Chapter 4 General Requirements

4.1 General.

Prior to operating fire department vehicles, the fire apparatus driver/operator shall meet the job performance requirements defined in Sections [4.2](#) and [4.3](#).

4.2 Preventive Maintenance.

4.2.1* Perform routine tests, inspections, and servicing functions on the systems and components specified in the following list, given a fire department vehicle, its manufacturer's specifications, and policies and procedures of the jurisdiction, so that the operational status of the vehicle is verified:

- (1) Battery(ies)
- (2) Braking system
- (3) Coolant system
- (4) Electrical system
- (5) Fuel
- (6) Hydraulic fluids
- (7) Oil
- (8) Tires
- (9) Steering system
- (10) Belts
- (11) Tools, appliances, and equipment

(A) Requisite Knowledge. Manufacturer specifications and requirements, policies, and procedures of the jurisdiction.

(B) Requisite Skills. The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.

4.2.2 Document the routine tests, inspections, and servicing functions, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported.

(A) Requisite Knowledge. Departmental requirements for documenting maintenance performed and the importance of keeping accurate records.

(B) Requisite Skills. The ability to use tools and equipment and complete all related departmental forms.

4.3 Driving/Operating.

4.3.1* Operate a fire department vehicle, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features, specified in the following list, that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state and local laws, departmental rules and regulations, and the requirements of [NFPA 1500](#), Section 4.2:

- (1) Four left turns and four right turns

- (2) A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length
- (3) One through-intersection and two intersections where a stop has to be made
- (4) One railroad crossing
- (5) One curve, either left or right
- (6) A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes
- (7) A downgrade steep enough and long enough to require down-shifting and braking
- (8) An upgrade steep enough and long enough to require gear changing to maintain speed
- (9) One underpass or a low clearance or bridge

(A) Requisite Knowledge. The effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

(B) Requisite Skills. The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.

4.3.2* Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter, and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.

(A) Requisite Knowledge. Vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.

(B) Requisite Skills. The ability to use mirrors and judge vehicle clearance.

4.3.3* Maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing, and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions.

(A) Requisite Knowledge. Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) Requisite Skills. The ability to use mirrors and judge vehicle clearance.

4.3.4* Turn a fire department vehicle 180 degrees within a confined space, given a fire department vehicle, a spotter for backing up, and an area in which the vehicle cannot

perform a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without striking obstructions within the given space.

(A) Requisite Knowledge. Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) Requisite Skills. The ability to use mirrors and judge vehicle clearance.

4.3.5* Maneuver a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings and so that no obstructions are struck.

(A) Requisite Knowledge. Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) Requisite Skills. The ability to use mirrors and judge vehicle clearance.

4.3.6* Operate a vehicle using defensive driving techniques under emergency conditions, given a fire department vehicle and emergency conditions, so that control of the vehicle is maintained.

(A) Requisite Knowledge. The effects on vehicle control of liquid surge, braking reaction time, and load factors; the effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, gear patterns; and automatic braking systems in wet and dry conditions; negotiation of intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

(B) Requisite Skills. The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.

4.3.7* Operate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer's specifications and instructions, and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies.

(A) Requisite Knowledge. Manufacturer's specifications and operating procedures, and policies and procedures of the jurisdiction.

(B) Requisite Skills. The ability to deploy, energize, and monitor the system or equipment and to recognize and correct system problems.

Chapter 5 Apparatus Equipped with Fire Pump

5.1* General.

The requirements of Fire Fighter 1 as specified in [NFPA 1001](#) (or the requirements of Advanced Exterior Industrial Fire Brigade Member or Interior Structural Fire Brigade Member as specified in [NFPA 1081](#)) and the job performance requirements defined in Sections [5.1](#) and [5.2](#) shall be met prior to qualifying as a fire department driver/operator — pumper.

5.1.1 Perform the routine tests, inspections, and servicing functions specified in the following list in addition to those in [4.2.1](#), given a fire department pumper, its manufacturer's specifications, and policies and procedures of the jurisdiction, so that the operational status of the pumper is verified:

- (1) Water tank and other extinguishing agent levels (if applicable)
- (2) Pumping systems
- (3) Foam systems

(A) Requisite Knowledge. Manufacturer's specifications and requirements, and policies and procedures of the jurisdiction.

(B) Requisite Skills. The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.

5.2 Operations.

5.2.1 Produce effective hand or master streams, given the sources specified in the following list, so that the pump is engaged, all pressure control and vehicle safety devices are set, the rated flow of the nozzle is achieved and maintained, and the apparatus is continuously monitored for potential problems:

- (1) Internal tank
- (2)*** Pressurized source
- (3) Static source
- (4) Transfer from internal tank to external source

(A) Requisite Knowledge. Hydraulic calculations for friction loss and flow using both written formulas and estimation methods, safe operation of the pump, problems related to small-diameter or dead-end mains, low-pressure and private water supply systems, hydrant coding systems, and reliability of static sources.

(B) Requisite Skills. The ability to position a fire department pumper to operate at a fire hydrant and at a static water source, power transfer from vehicle engine to pump, draft, operate pumper pressure control systems, operate the volume/pressure transfer valve (multistage pumps only), operate auxiliary cooling systems, make the transition between internal and external water sources, and assemble hose lines, nozzles, valves, and appliances.

5.2.2 Pump a supply line of 65 mm (2½ in.) or larger, given a relay pumping evolution the length and size of the line and the desired flow and intake pressure, so that the correct pressure and flow are provided to the next pumper in the relay.

(A) Requisite Knowledge. Hydraulic calculations for friction loss and flow using both written formulas and estimation methods, safe operation of the pump, problems related to small-diameter or dead-end mains, low-pressure and private water supply systems, hydrant coding systems, and reliability of static sources.

(B) Requisite Skills. The ability to position a fire department pumper to operate at a fire hydrant and at a static water source, power transfer from vehicle engine to pump, draft, operate pumper pressure control systems, operate the volume/pressure transfer valve (multistage pumps only), operate auxiliary cooling systems, make the transition between internal and external water sources, and assemble hose lines, nozzles, valves, and appliances.

5.2.3 Produce a foam fire stream, given foam-producing equipment, so that properly proportioned foam is provided.

(A) Requisite Knowledge. Proportioning rates and concentrations, equipment assembly procedures, foam system limitations, and manufacturer's specifications.

(B) Requisite Skills. The ability to operate foam proportioning equipment and connect foam stream equipment.

5.2.4 Supply water to fire sprinkler and standpipe systems, given specific system information and a fire department pumper, so that water is supplied to the system at the correct volume and pressure.

(A) Requisite Knowledge. Calculation of pump discharge pressure; hose layouts; location of fire department connection; alternative supply procedures if fire department connection is not usable; operating principles of sprinkler systems as defined in [NFPA 13](#), [NFPA 13D](#), and [NFPA 13R](#); fire department operations in sprinklered properties as defined in [NFPA 13E](#); and operating principles of standpipe systems as defined in [NFPA 14](#).

(B) Requisite Skills. The ability to position a fire department pumper to operate at a fire hydrant and at a static water source, power transfer from vehicle engine to pump, draft, operate pumper pressure control systems, operate the volume/pressure transfer valve (multistage pumps only), operate auxiliary cooling systems, make the transition between internal and external water sources, and assemble hose line, nozzles, valves, and appliances.



Chapter 6 Apparatus Equipped with an Aerial Device

6.1* General.

The requirements of Fire Fighter I as specified in [NFPA 1001](#) (or the requirements of Advanced Exterior Industrial Fire Brigade Member or Interior Structural Fire Brigade Member as specified in [NFPA 1081](#)) and the job performance requirements defined in Sections [6.1](#) and [6.2](#) shall be met prior to qualifying as a fire department driver/operator — aerial.

6.1.1 Perform the routine tests, inspections, and servicing functions specified in the following list in addition to those specified in [4.2.1](#), given a fire department aerial apparatus, and policies and procedures of the jurisdiction, so that the operational readiness of the aerial apparatus is verified:

- (1) Cable systems (if applicable)
- (2) Aerial device hydraulic systems
- (3) Slides and rollers
- (4) Stabilizing systems
- (5) Aerial device safety systems
- (6) Breathing air systems
- (7) Communication systems

(A) Requisite Knowledge. Manufacturer's specifications and requirements, and policies and procedures of the jurisdiction.

(B) Requisite Skills. The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.

6.2 Operations.

6.2.1 Maneuver and position an aerial apparatus, given an aerial apparatus, an incident location, a situation description, and an assignment, so that the apparatus is positioned for correct aerial device deployment.

(A) Requisite Knowledge. Capabilities and limitations of aerial devices related to reach, tip load, angle of inclination, and angle from chassis axis; effects of topography, ground, and weather conditions on deployment; and use of the aerial device.

(B) Requisite Skills. The ability to determine a correct position for the apparatus, maneuver apparatus into that position, and avoid obstacles to operations.

6.2.2 Stabilize an aerial apparatus, given a positioned vehicle and the manufacturer's recommendations, so that power can be transferred to the aerial device hydraulic system and the device can be deployed.

(A) Requisite Knowledge. Aerial apparatus hydraulic systems, manufacturer's specifications for stabilization, stabilization requirements, and effects of topography and ground conditions on stabilization.

(B) Requisite Skills. The ability to transfer power from the vehicle's engine to the hydraulic system and operate vehicle stabilization devices.

6.2.3 Maneuver and position the aerial device from each control station, given an incident location, a situation description, and an assignment, so that the aerial device is positioned to accomplish the assignment.

(A) Requisite Knowledge. Aerial device hydraulic systems, hydraulic pressure relief systems, gauges and controls, cable systems, communications systems, electrical systems, emergency operating systems, locking systems, manual rotation and lowering systems, stabilizing systems, aerial device safety systems, system overrides and the hazards of using overrides, safe operational limitations of the given aerial device, safety procedures specific to the device, and operations near electrical hazards and overhead obstructions.

(B) Requisite Skills. The ability to raise, rotate, extend, and position to a specified location, as well as lock, unlock, retract, lower, and bed the aerial device.

6.2.4 Lower an aerial device using the emergency operating system, given an aerial device, so that the aerial device is lowered to its bedded position.


(A) Requisite Knowledge. Aerial device hydraulic systems, hydraulic pressure relief systems, gauges and controls, cable systems, communications systems, electrical systems, emergency operating systems, locking systems, manual rotation and lowering systems, stabilizing systems, aerial device safety systems, system overrides and the hazards of using overrides, safe operational limitations of the given aerial device, safety procedures specific to the device, and operations near electrical hazards and overhead obstructions.

(B) Requisite Skills. The ability to rotate and position to center, unlock, retract, lower, and bed the aerial device using the emergency operating system.

6.2.5 Deploy and operate an elevated master stream, given an aerial device, a master stream device, and a desired flow so that the stream is effective and the aerial and master stream devices are operated correctly.

(A) Requisite Knowledge. Nozzle reaction, range of operation, and weight limitations.

(B) Requisite Skills. The ability to connect a water supply to a master stream device and control an elevated nozzle manually or remotely.



Annex A Explanatory Material

Annex A is not a part of the requirements of this NFPA document but is included for informational purposes only. This annex contains explanatory material, numbered to correspond with the applicable text paragraphs.

A.1.2 The purpose of this standard is not to mandate that all fire apparatus driver/operators meet the requirements of all chapters of this standard. Personnel should meet only those provisions that pertain to the types of apparatus they will be expected to drive and operate.

A.1.4.3 It is the committee's intent that this standard be applied to all fire department vehicles. Drivers of vehicles not specifically addressed in Chapters [5](#) through [10](#) (e.g., staff or command vehicles, rescue or utility vehicles, and buses) are expected to meet the requirements of Chapter [4](#). Agencies operating unique or special vehicles (e.g., tractors, bulldozers, cranes, and graders) should develop job performance requirements and training programs for those vehicles.

A.1.4.10 It is recommended that evaluators be individuals who were not directly involved as instructors for the requirement being evaluated.

A.1.4.13 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted. It should not be assumed that all these vehicles are wheel drive.

A.1.4.14 Continuing education or training is necessary to ensure that driver/operators remain current and update their knowledge and skills of fire apparatus operations. Nationally recognized certification is one means of demonstrating proficiency in current practices.

A.3.2.1 Approved. The National Fire Protection Association does not approve, inspect, or certify any installations, procedures, equipment, or materials; nor does it approve or evaluate testing laboratories. In determining the acceptability of installations, procedures, equipment, or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure, or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization that is concerned with product evaluations and is thus in a position to determine compliance with appropriate standards for the current production of listed items.

A.3.2.2 Authority Having Jurisdiction (AHJ). The phrase "authority having jurisdiction," or its acronym AHJ, is used in NFPA documents in a broad manner, since jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance

inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

A.3.3.25 Wildland Fire Apparatus. These vehicles are expected to operate on a wide variety of surfaces, including off-road. They are equipped with fixed or portable pumps used to supply attack lines; however, these pumps are generally of a capacity that does not put the vehicle into the classification of attack or fire pump.

A.4.2.1 Routine tests, inspections, and servicing functions should be performed on a daily, weekly, monthly, or other periodic basis as determined by departmental policy. The specifications provided by the manufacturer for these functions should be followed.

A.4.3.1 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.

A.4.3.2 The alley dock exercise can be used as practice for meeting or in the evaluation of this requirement. This exercise measures a driver's ability to drive past a simulated dock or stall, back the apparatus into the space provided, and stop smoothly. A dock or stall can be simulated by arranging barricades 12.2 m (40 ft) from a boundary line. These barricades should be 3.7 m (12 ft) apart, and the length should be approximately 6.1 m (20 ft). The driver should pass the barricades with the dock on the left and then back the apparatus, using a left turn, into the stall. The exercise should then be repeated with the dock on the right side, using a right turn. [*See [Figure A.4.3.2\(a\)](#).*]

FIGURE A.4.3.2(a) Alley Dock Exercise.

The apparatus station parking maneuver can also be used as practice for meeting or in the evaluation of this requirement. This exercise measures the driver's ability to back the apparatus into a fire station to park or to back the apparatus down a street to reverse the direction of travel. An engine bay can be simulated by allowing for a 6.1 m (20 ft) minimum setback from a street 9 m (30 ft) wide, with a set of barricades at the end of the setback, spaced 3.7 m (12 ft) apart to simulate the garage door. The setback from the street should be determined by the testing agency to ensure that the distances reflect those encountered by the apparatus driver during the normal course of duties. A marker placed on the ground should indicate to the operator the proper position of the left front

tire of the vehicle once stopped and parked. A straight line can be provided to assist the operator while backing the apparatus, facilitating the use of vehicle mirrors. The minimum depth distance is determined by the total length of the vehicle. [See [Figure A.4.3.2\(b\)](#).]

Note that for large vehicles, such as ARFF apparatus, this course might need to be modified.

FIGURE A.4.3.2(b) Station Parking Procedure Drill.

A.4.3.3 The serpentine exercise can be used as practice for meeting or in the evaluation of this requirement. This exercise measures a driver's ability to steer the apparatus in close limits without stopping. The exercise should be conducted with the apparatus moving first backward, then forward. The course or path of travel for this exercise can be established by placing a minimum of three markers, each spaced between 9 m (30 ft) and 12 m (38 ft) apart, in a line. The spacing of the markers should be based on the wheel base of the vehicle used. Adequate space must be provided on each side of the markers for the apparatus to move freely. The driver should drive the apparatus along the left side of the markers in a straight line and stop just beyond the last marker. The driver then should begin the exercise by backing the apparatus between the markers by passing to the left of marker No. 1, to the right of marker No. 2, and to the left of marker No. 3. At this point, the driver should stop the vehicle and then drive it forward between the markers by passing to the right of marker No. 3, to the left of marker No. 2, and to the right of marker No. 1. (See [Figure A.4.3.3](#).)

Note that for large vehicles, such as ARFF apparatus, this course might need to be modified.

FIGURE A.4.3.3 Serpentine Exercise.

A.4.3.4 The confined space turnaround can be used as practice for meeting or in the evaluation of this requirement. This exercise measures the driver's ability to turn the vehicle around in a confined space without striking obstacles. The turn is accomplished within an area 15.24 m x 30.5 m (50 ft x 100 ft). The driver moves into the area from a 3.7 m (12 ft) opening in the center of one of the 15.24 m (50 ft) legs, turns the vehicle 180 degrees, and returns through the opening. There is no limitation on the number of times the driver has to maneuver the vehicle to accomplish this exercise, but no portion of the vehicle should extend over the boundary lines of the space. (See [Figure A.4.3.4.](#)) Note that for large vehicles, such as ARFF apparatus, this course might need to be modified.

FIGURE A.4.3.4 Confined Space Turnaround.

A.4.3.5 The diminishing clearance exercise can be used as practice for meeting or in the evaluation of this requirement. This exercise measures a driver's ability to steer the apparatus in a straight line, to judge distances from wheel to object, and to stop at a finish line. The speed at which a driver should operate the apparatus is optional, but it should be great enough to necessitate quick judgment. This exercise is to be performed both forward and in reverse with a spotter. The course for this exercise is created by arranging two rows of markers to form a lane 22.9 m (75 ft) long. The lane varies in width from 2.9 m (9 ft 6 in.) to a diminishing clearance of 2.5 m (8 ft 2 in.). The driver should maneuver the apparatus through this lane without touching the markers. The vehicle should be stopped at a finish line 15.24 m (50 ft) beyond the last marker. No portion of the vehicle should protrude beyond this line. Vertical clearance judgment should be evaluated using a prop with a crossbar that is adjustable, based on the vehicle height. During the evaluation, the driver should drive forward and back through the prop with the crossbar at several differing heights, including one that is lower than the top of the vehicle. The prop should not be struck. The intent of the vertical clearance judgment is for proper identification of the furthestmost point in the form of the apparatus. In situations where the apparatus is gaining entry to roadways or limited-height areas, the driver/operator must allow appropriate space ahead of the apparatus in order to avoid striking objects or to avoid extending apparatus into traffic lanes. (*See [Figure A.4.3.5.](#)*)

Note that for large vehicles, such as ARFF apparatus, this course might need to be modified.

FIGURE A.4.3.5 Diminishing Clearance Exercise.

A.4.3.6 Emergency driving simulation should be restricted to a driving track or similar controlled area. Emergency driver training should not be conducted on public ways. For more information, see 49 CFR 383.

A.4.3.7 The committee's intent for this job performance requirement is for the driver/operator to be able to operate all major equipment and mechanical systems that are attached to the apparatus, other than those specifically covered in Chapters [5](#) through [10](#) of this standard. These types of equipment and systems include, but are not limited to, electric generation equipment, floodlighting systems, air compressors, air cascade systems, hydraulic rescue tool systems, power reels for air or hydraulic hose, cranes and stabilizers, and A-frames or other lifting equipment.

A.5.1 The requirements of Chapter [5](#) specify that the candidate shall meet the requirements of Fire Fighter I as specified in [NFPA 1001](#) before qualification as a fire apparatus driver/operator. This means that the individual applying for qualification as a fire apparatus driver/operator has met all of the objectives in Chapters 1, 4, and 5 of [NFPA 1001](#). These objectives include further requirements in areas such as fire hose, nozzles, and appliances; fire streams; water supplies; and sprinklers.

These requirements are in addition to the requirements of this standard. Any fire fighter who has already been qualified as a Fire Fighter I should review the requirements of the referenced chapters of [NFPA 1001](#), as the candidate can be tested on the requirements included therein.

A.5.2.1(2) Pressurized sources include the following:

- (1) Connection to a hydrant
- (2) Supply line from another pumping source

A.6.1 The requirements of Chapter [6](#) specify that the candidate shall meet the requirements of Fire Fighter I as specified in [NFPA 1001](#) before qualification as a fire apparatus driver/operator. This means that the individual applying for qualification as a fire apparatus driver/operator has met all of the objectives in Chapters 1, 4, and 5 of [NFPA 1001](#). These objectives include further requirements in areas such as fire hose, nozzles, and appliances; fire streams; water supplies; and sprinklers. These requirements are in addition to the requirements of this standard. Any fire fighter who has already been qualified as a Fire Fighter I should review the requirements of the referenced chapters of [NFPA 1001](#), as the candidate can be tested on the requirements included therein.

A.7.1 The requirements of Chapter [7](#) specify that the candidate shall meet the requirements of Fire Fighter I as specified in [NFPA 1001](#) before qualification as a fire apparatus driver/operator. This means that the individual applying for qualification as a fire apparatus driver/operator has met all of the objectives in Chapters 1, 4, and 5 of [NFPA 1001](#). These objectives include further requirements in areas such as fire hose, nozzles, and appliances; fire streams; water supplies; and sprinklers. These requirements are in addition to the requirements of this standard. Any fire fighter who has already been qualified as a Fire Fighter I should review the requirements of the referenced chapters of [NFPA 1001](#), as the candidate can be tested on the requirements included therein.

Some fire departments operate fire apparatus that are equipped with a tiller (i.e., tillered rescue apparatus), but not an aerial device. The applicable portions of this chapter should be used as the basis for training personnel to drive those types of apparatus.

A.7.2.1 See [A.4.3.3](#) through [A.4.3.5](#).

A.8.1.2 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.

A.8.2.1(2) Pressurized sources include the following:

- (1) Connection to a hydrant
- (2) Supply line from another pumping source

A.9.1 The requirements of Chapter 9 specify that the candidate shall meet the requirements of Fire Fighter II as specified in [NFPA 1001](#) before qualification as a fire apparatus driver/operator. This means that the individual applying for qualification as a fire apparatus driver/operator has met all of the objectives in Chapters 1, 4, and 5 of [NFPA 1001](#). These objectives include further requirements in areas such as fire hose, nozzles, and appliances; fire streams; water supplies; and sprinklers. These requirements are in addition to the requirements of this standard. Any fire fighter who has already been qualified as a Fire Fighter II should review the requirements of the referenced chapters of [NFPA 1001](#), as the candidate can be tested on the requirements included therein.

A.9.1.1(1) An agent dispensing system is the primary fire suppression agent carried on ARFF vehicles and usually is aqueous film-forming foam (AFFF).

A.9.1.1(2) A secondary extinguishing system is a separate system, totally independent of the primary system. It includes Halon 1211 (its future replacement), dry chemical, and other such systems used for specific types of aircraft-associated fires.

A.9.1.3 The maneuvers and features specified for this job performance requirement include driving situations that the committee has determined to be essential. The committee recognizes that each of these situations might not exist in all areas. Where this occurs, those specific requirements can be omitted.

A.9.2.3(2) Pressurized sources include the following:

- (1) Connection to a hydrant
- (2) Supply line from another pumping source

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A.10.2.1 The intent of this requirement is for the driver/operator to be able to quickly and efficiently position the vehicle at a water shuttle fill site that has been established prior to the vehicle's arrival. Most commonly a fire department pumper will connect to a water supply source and lay hose out that can be quickly attached to the mobile water supply apparatus once it arrives at the fill site. If the jurisdiction operates its fill site operations in a different manner, this requirement might need to be adjusted accordingly.

A.10.2.2 The intent of this requirement is for the driver/operator to be able to quickly and efficiently position the vehicle at a water shuttle dump site that has been established prior to the vehicle's arrival. The dump site will typically consist of one or more portable tanks that have been deployed on the ground. A fire department pumper drafts water from the portable tanks for use on the incident. The mobile water supply apparatus' function is to quickly dump their load into the portable tank and return to the fill site for another load. Depending on the design of the mobile water supply apparatus, one of three methods can be used to discharge water into the portable water tank. These methods include pumping the water off, using a gravity dump, or using a jet-assisted gravity dump. Depending on the design of the apparatus, water can be discharged from the front, rear, or either side of the vehicle.

A.10.2.3 A proper dump site involves the use of two or more portable tanks that are connected by a series of water transfer equipment. The water transfer equipment can be supplied by hoselines from the pumper that is supplying the fire scene or a second pumper placed at the drafting tank for the sole purpose of transferring water between the tanks. The goal is to keep the tank from which water is being drafted full at all times and the tank from which water is being dumped empty. This will ensure that mobile water supply apparatus that arrive at the dump site can unload their water and return for more in the shortest time possible.