

Minnesota Fire Service Certification

Fire Apparatus Operator - Mobile Water Supply

NFPA 1002 - 2017 Edition

Prerequisite - None

A completed application and payment plan are required one week before taking the Fire Apparatus Operator – Mobile Water Supply Certification test. There are no prerequisites for Mobile Water Supply, however if the candidates does not hold a current Firefighter I they will be required to complete Station #8 “Communications”. The candidate must have the knowledge as outlined in NFPA 1002, 2017 Edition, Standard for Fire Apparatus Driver/Operator Professional Qualifications.

There are several ways to obtain the knowledge and skills necessary to pass the exam, such as a technical college program, an individual fire department training, self-study..., etc. The Minnesota Fire Service Certification Board does not provide any training nor do we provide examination reviews. No prior certification is required.

Standard

NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 Edition. The questions and skills tested are designed to test the candidate on the knowledge and proficiencies as outlined in NFPA 1002 for Fire Apparatus Operator – Mobile Water Supply. All questions have been referenced to a specific standard in NFPA 1002.

Reference List (V10.1)

The textbooks and reference documents listed below were used in developing the test questions and the practical exams for the Certification test. The candidate should have knowledge of the information contained in these books:

- NFPA 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 Edition
- IFSTA Pumping Apparatus Driver/Operator Handbook, 3rd Edition
- Jones and Bartlett, Fire Apparatus Driver/Operator: Pumper, Aerial, Tiller and Mobile Water Supply, 3rd Edition

Test

The written test is made up of 100 multiple-choice questions selected at random from a test bank of 186 questions. A score of 70% (adjusted by standard measurement of error) must be achieved in order to achieve a passing score. The skills test will require the candidate to complete 4 to 5 of the 8 skills required to prove proficiency in the areas outlined in NFPA 1002, 2017 Edition.

Test Cost

\$150.00

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Re-certification

- Every three years - 48 hours total of a combination of Service Delivery, Task Performance, and/or Training/Education with a minimum of 24 hours of Training/Education.
 - NFPA 1002 (2017 Edition) 1.2.6 Emergency response personnel who drive and operate fire apparatus shall remain current with the general knowledge, skills, and JPRs addressed for each level or position of qualification. Emergency response personnel who drive and operate fire apparatus shall remain current with practices and applicable standards and shall demonstrate competency on an annual basis.
- Re-certification Cost: \$25.00

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Fire Apparatus Operator
Mobile Water Supply

NFPA 1002 2017 Edition



Requirements:

- 1. There are no prerequisites for Fire Apparatus Operator – Mobile Water Supply, however if the candidate does not hold a current NFPA 1001 Firefighter I they will be required to take Station #8 – “ Communications” in addition to the other skills.**
- 2. Completed application form and fee of \$150.00 is covered.**
- 3. Candidate will be required to complete four or five skill stations. Station 1 is mandatory, 2 from Stations 2-5 as determined at random by the evaluator, Station 6 or 7 AND Skill Station 8 if they do not hold a current Firefighter I certification.**
- 4. Candidate shall be licensed to drive all vehicles they are expected to operate.**

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SKILL STATION 1

MOBILE WATER SUPPLY APPARATUS INSPECTION

Candidate _____

Evaluator _____

Tested Standard: NFPA 1002 (2017) 4.2.1, 4.2.2, & 10.1.1.

Perform visual and operational checks 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; document the visual and operational checks, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported; perform visual and operational checks on the systems and components specified in the following list in addition to those specified in 4.2.1, given a fire department mobile water supply apparatus, and policies and procedures of the jurisdiction, so that the operational readiness of the mobile water supply apparatus is verified.

OBJECTIVE: The candidate will demonstrate inspecting the operational readiness of a mobile water supply apparatus.

Deduction Points

Inspect Batteries for corrosion and loose cable connections	_____5
Inspect Coolant system hoses and fluid level	_____5
Inspect Electrical system for proper voltage	_____5
Inspect Fuel level	_____5
Inspect Hydraulic fluid level (if applicable)	_____5
Inspect Engine oil level	_____5
Inspect Tires for proper inflation	_____5
Inspect Steering system fluid level	_____5
Inspect Steering wheel play for less than 10 degrees in either direction	_____5
Inspect Belts for excessive wear and proper tension	_____5
Ensure that all tools, appliances, and equipment are operational	_____5
Inspect any built-in safety features for proper operation and condition	_____5
Check water tank and other extinguishing agent (if equipped) levels	_____5
Inspect pumping system operation (if equipped)	_____5
Inspect rapid dump system operation (if equipped)	_____5
Recognize and/or correct deficiencies per department policies & procedures	_____10
Document inspections per department policies & procedures	_____10
Verify operational status of the vehicle	_____5

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 2 OPERATE FIXED SYSTEMS

Candidate _____

Evaluator _____

Tested Standard: NFPA 1002 (2017) 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.

OBJECTIVE: The candidate will demonstrate operating fixed systems

	<u>Deduction Points</u>
Deploy equipment	_____15
Energize or started equipment	_____10
Operate equipment per manufactures specs & dept. policies/procedures	_____15
Monitor the equipment for problems	_____10
Correct any equipment problems	_____10
De-energize equipment	_____10
Re-service equipment	_____10
Stow equipment on apparatus	_____10
Fills out proper paperwork	_____10

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 3 OPERATING AT A FILL SITE

Candidate: _____

Evaluator: _____

Tested Standards: NFPA 1002 (2017) 10.2.1

Maneuver and position a mobile water supply apparatus at a water shuttle fill site, given a fill site location and one or more supply hose, so that the apparatus is correctly positioned, supply hose are attached to the intake connections without having to stretch additional hose, and no objects are struck at the fill site.

OBJECTIVE: The candidate will demonstrate operating a mobile water supply apparatus at a fill site

Deduction Points

Identify local procedures for establishing a water shuttle fill site	_____15
Establish a method of marking the apparatus stopping position	_____15
Identify the location of water intakes on the apparatus	_____10
Determine the correct positioning of apparatus	_____10
Avoid any obstacles to operations	_____10
Maneuver apparatus into correct position	_____15
Supply hose attached to intakes connections without having to stretch more hose	_____10
No objects were struck at the fill site	_____15

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 4 OPERATING AT A DUMP SITE

Candidate: _____

Evaluator: _____

Tested Standards: NFPA 1002 (2017) 10.2.2

Maneuver and position a mobile water supply apparatus at a water shuttle dump site, given a dump site and a portable water tank, so that all of the water being discharged from the apparatus enters the portable water tank and no objects are struck at the fill site.

OBJECTIVE: The candidate will demonstrate operating a mobile water supply apparatus at a dump site.

Deduction Points

Identify local procedures for operating a water shuttle dump site	_____15
Establish a method of marking the apparatus stopping position	_____15
Identify the location of the water tank discharges on the apparatus	_____10
Determine the correct position for the apparatus	_____10
Avoid any obstacles to operations	_____10
Maneuver apparatus into correct position	_____15
Operate the fire pump or rapid dump system	_____10
No objects were struck at the dump site	_____15

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 5 ESTABLISH A DUMP SITE

Candidate: _____

Evaluator: _____

Tested Standards: NFPA 1002 (2017) 10.2.3

Establish a water shuttle dump site, given two or more portable water tanks, low-level strainers, water transfer equipment, fire hose, and a fire apparatus equipped with a fire pump, so that the tank being drafted from is kept full at all times, the tank being dumped into is emptied first, and the water is transferred efficiently from one tank to the next.

OBJECTIVE: The candidate will demonstrate establishing a water shuttle dump site

Deduction Points

Determine correct position for portable water tanks based on local procedure	_____10
Deploy portable water tanks.	_____10
Connect strainer and suction hose to pump	_____10
Connect water transfer equipment.	_____10
Fill the portable water that was being drafted from	_____10
Fill additional portable water tanks	_____10
Operate water transfer equipment	_____10
Tank being drafted from is kept full	_____10
Tank being dumped into is emptied	_____10
Water is transferred efficiently from one tank to the next.	_____10

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 6 PUBLIC ROADWAY DRIVING

Candidate: _____

Evaluator: _____

Tested Standard: NFPA 1002 (2017) 4.3.1, & 4.3.6

Operate a fire apparatus, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features 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 and departmental rules and regulations and,

Operate a vehicle using defensive driving techniques, given an assignment and a fire apparatus, so that control of the vehicle is maintained.

OBJECTIVE: The candidate will demonstrate driving a fire apparatus on a public roadway.

Deduction Points

Explain:

causes of apparatus crashes and operator/driver responsibilities (No seat belts)	_____5
effects of liquid surge, braking reaction time, & load factors on vehicle control	_____5
center-of-gravity on rollover potential, steering reaction, speed, & centrifugal force	_____5
skid avoidance, night driving, and gear patterns	_____5
the use of automatic braking system in wet and dry conditions	_____5
operational limits of the vehicle	_____5
Check and adjust driver's seat, vehicle mirrors, and vehicle controls	_____10
Ensure all occupant restraints are secured before putting vehicle in motion	_____FAIL

Maneuver:

vehicle through turns safely	_____5
on roadway and bridges (if applicable) safely	_____5
vehicle through turns safely	_____5
vehicle through curves safely	_____5
through railroad crossings safely	_____5
upgrades and downgrades safely	_____5

Verify road and bridge clearances and weight limits _____5

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SKILL STATION 6 PUBLIC ROADWAY DRIVING (CONTINUED)

Operate:

vehicle under adverse environmental or driving surface conditions	_____5
vehicle safely and in accordance with applicable laws and regulations	_____5
Maintain control of the vehicle while accelerating, decelerating, & turning	_____5
Travel at safe speeds given road/weather/traffic conditions and maintained safe traveling distances	_____5
Identify and maintain awareness of vehicle gauges and instruments	_____5

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 7 OBSTACLE DRIVING

Candidate Number _____

Evaluator: _____

Tested Standard: NFPA 1002 (2017 Edition) Section: 4.3.2, 4.3.3, 4.3.4, 4.3.5 & 4.3.6
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. (4.3.2)

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. (4.3.3)

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. (4.3.4)

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. (4.3.5)

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. (4.3.6)

OBJECTIVE: The candidate will, given a Fire Department pumper, perform three of the following maneuvers in a safe manner and in compliance with all state and local laws: 1.) back a vehicle from a roadway into restricted places on both the right and left sides of the vehicle, given a spotter and restricted spaces 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 obstacles, 2.) maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given 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 traffic and without striking the obstructions, 3.) turn a vehicle 180 degrees within a confined space, given a spotter for backing, 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, 4.) maneuver a vehicle in areas with restricted horizontal and vehicle clearances, given a course with areas of restricted horizontal and

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SKILL STATION 7 OBSTACLE DRIVING (CONTINUED)

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 and 5.) Operate a fire department pumper using defensive driving techniques, so that control of the vehicle is maintained

Competencies:

Backing

1. Back the vehicle into an alley dock from the left
(Criteria: Traffic Observation, Roadway Observation, Signaling, Observation of Spotter, Mirror Usage, No stopping until maneuver is complete, Does not strike course boundaries)
2. Back the vehicle into an alley dock from the right.
(Criteria: Traffic Observation, Roadway Observation, Signaling, Observation of Spotter, Mirror Usage, No stopping until maneuver is complete, Does not strike course boundaries)

Maneuver/Turn/Restricted Clearances:

1. Maneuver the vehicle through a serpentine forward and reverse
(Criteria: Does not hit course boundaries, appropriate speed, Spotter Observation, Mirror Usage)
2. Turning in a confined space, perform an restricted area Y-turn.
(Criteria: Does not hit course boundaries, Stopping, Spotter Observation, Acceleration)

Diminishing Clearances:

1. Drive the vehicle through a diminishing clearance obstacle.
(Criteria: Appropriate speed, does not strike horizontal or vertical boundaries)
2. Drive the vehicle through an offset lane change obstacle.
(Criteria: Appropriate speed, does not strike boundaries, and maintain safe distances)

Emergency Driving:

1. Drive the vehicle safely under simulated emergency conditions
(Criteria: Appropriate speed, Right of way, safe distances, audible and visual signals activated)
2. Drive the vehicle safely through controlled intersection.
(Criteria: Appropriate speed, Right of way, audible and visual signals activated)

General:

1. Operate passenger restraint devices
2. Maintain safe following distances.
3. Maintain control of vehicle while accelerating, decelerating, and turning in all conditions.
4. Proper use of mirrors
5. Use of automotive gauges and controls
6. Operate under adverse environmental or driving surface conditions.

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SKILL STATION 7 OBSTACLE DRIVING (CONTINUED)

Candidate Number _____

Evaluator: _____

Did the candidate, as instructed, demonstrate competency in the following:

	<u>Deduction Points</u>
Back the vehicle into an alley dock from the left	_____ 10
Back the vehicle into an alley dock from the right	_____ 10
Maneuver the vehicle through a serpentine forward and reverse	_____ 10
Turning in a confined space/perform a restricted area Y-turn.	_____ 10
Drive the vehicle through a diminishing clearance obstacle.	_____ 10
Drive the vehicle through an offset lane change obstacle.	_____ 10
Drive the vehicle safely under simulated emergency conditions	_____ 10
Drive the vehicle safely through controlled intersection	_____ 10
Operate passenger restraint devices	_____ Fail
Maintain safe following distances	_____ Fail
Maintain control of vehicle while accelerating, decelerating, and turning in all conditions	_____ Fail
Proper use of mirrors	_____ 10
Use of automotive gauges and control.	_____ 10

Total Points Possible 100

Total Deductions _____

Score _____

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SKILL STATION 8 FIRE DEPARTMENT COMMUNICATIONS

Candidate Number _____

Evaluator: _____.

Tested Standard: NFPA 1002 (2017 Edition) Section: 4.4.1, 4.4.2, 4.4.3 & 4.4.4

Initiate the response to a reported emergency, given the report of an emergency, fire department SOPs, and communications equipment, so that all necessary information is obtained, communications equipment is operated correctly and the information is relayed promptly and accurately to the dispatch center (4.4.1)

Receive a telephone call, given a fire department phone, so that procedures for answering the phone are used and the caller's information is relayed. (4.4.2)

Transmit and receive messages via the fire department radio, given a fire department radio and operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ. (4.4.3)

Activate emergency procedures, given an emergency situation and department SOPs, so that emergency actions can be initiated. (4.4.4)

OBJECTIVE: The candidate, given a scenario; shall demonstrate competencies as detailed below with respect to fire department communication devices and fire department policies and procedures

Note: This station only required for those not holding a current Fire Fighter I Certificate.

Did the candidate, as instructed, demonstrate competency in the following:

	<u>Deduction Points</u>
The ability to operate fire department communications equipment	_____ 10
Correctly relay information	_____ 10
Record information received	_____ 10
Follow fire department procedures for answering nonemergency telephone calls	_____ 10
Follow departmental radio procedures and etiquette for routine traffic	_____ 15
Follow protocol on Emergency traffic	_____ 15
Demonstrate Emergency evacuation signals	_____ 15
The ability to activate emergency procedures in accordance with the department's SOPs	_____ 15

Total Points Possible 100

Total Deductions _____

Score _____