

New Brunswick Fire Service Vehicle Operations Training Program



Office of the Fire Marshal

**With the collaboration of the Standard Review
Advisory Committee**

“Working together to build a safer New Brunswick”

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1 Administration

1.1 Scope

1.1.1 This standard shall contain the minimum requirements for a fire service vehicle operations training program.

1.1.2 The knowledge and skills required of safety, training, maintenance, and officers charged with developing and implementing the operations training program shall also be outlined within this standard.

1.2 Purpose

1.2.1 The purpose of this standard shall be to specify the minimum requirements for a fire service vehicle operations training program, including procedures for those members that drive or occupy fire service vehicles.

1.2.2 The achievement of the objectives of this performance standard shall be intended to help prevent crashes, injuries and fatalities involving fire service vehicles.

1.2.3 Compliance should help to reduce the cost of replacement, repairs, and out-of-service time of vehicles. Compliance can also reduce insurance premiums and civil liability and can enhance public relations.

1.3 Application

1.3.1. These requirements shall apply to organizations providing fire suppression, fire and rescue training, and other emergency services.

1.3.2 This standard shall apply to any fire service vehicle used by any member of a fire department or industrial response team.

1.4 References

1.4.1 N.F.P.A. 1451

1.4.2 N.F.P.A. 1901

1.4.3 N.F.P.A. 1903

1.4.4 Fire Department Incident Safety Officer, Dodson

2 Definitions

The definitions contained shall apply to the terms used in this standard. Where terms are not included, common usage of the terms shall apply.

- 2.1.1 **Approved** – Acceptable to the authority having jurisdiction.
- 2.1.2 **Authority Having Jurisdiction (AHJ)** – The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.
- 2.1.3 **Shall** – Indicates a mandatory requirement.
- 2.1.4 **Should** – Indicates a recommendation or that which is advised but not required.
- 2.1.5 **Fire Apparatus** – A fire department emergency vehicle used for rescue, fire suppression, or other specialized function.
- 2.1.6 **Fire Apparatus Driver/Operator** – A fire department member who is authorized by the authority having jurisdiction to drive, operate, or both drive and operate fire department vehicles.
- 2.1.7 **Fire Department** – An organization providing rescue, fire suppression, emergency medical service, hazardous materials operations, special operations, and related activities.
- 2.1.8 **Fire Service Vehicle** – Any vehicle operated by a fire department.
- 2.1.9 **Industrial Fire Brigade/Emergency Response Team** – An organized group of employees within an industrial occupancy who are knowledgeable, trained, and skilled in at least basic fire fighting operations, and whose full-time occupation might or might not be the provision of fire suppression and related activities for their employer.
- 2.1.10 **Instructor** – An individual deemed qualified by the authority having jurisdiction to deliver training in the operation of fire service vehicles.
- 2.1.11 **Member** – A person involved in performing the duties and responsibilities of a fire department or Emergency Response Team, under the auspices of the authority having jurisdiction.
- 2.1.12 **Qualified Person** – A person who, by possession of a recognized degree, certificate, professional standing, or skill, and who, by knowledge, training, and experience, has demonstrated the ability to deal with problems related to the subject matter, the work, or the project.
- 2.1.13 **Risk** – A measure of the probability and severity of adverse effects that result from exposure to a hazard.
- 2.1.14 **Safety Officer**- Generic title that can mean either an Incident Safety Officer or Health and Safety Officer (H.S.O.) or Manager. The dominant reference in this document refers to the H.S.O. role in the administration of Occupational Health and Safety protocols in the organization.

2.1.15 **Site Coordinator** - A person appointed by the Fire Chief or designate to help arrange the driver training site in cooperation with the driving instructor. The site coordinator will aid with the protection of the site and coordinate any support requirements at the training grounds. The site coordinator should make himself/herself familiar with the course through the Fire Chief and/or a qualified instructor. He/she will assist in the needs assigned by the driver training instructor.

3 Primary Considerations

3.1.1 All fire service vehicles shall meet the minimum safety standards as outlined in N.F.P.A. 1901 and 1903 Standards for Automotive Fire Apparatus.

3.1.2 The intent of this standard shall be to meet all requirements of NIOSH and the Motor Vehicle Act.

3.1.3 The intent of this standard shall be to meet all of the applicable requirements of NFPA 1002.

3.1.4 The fire apparatus driver/operator shall be subject to periodic medical evaluations, as required by the AHJ or New Brunswick Motor Vehicle Act.

3.1.5 The fire department should institute a program of post-crash drug and alcohol testing for the drivers of vehicles involved in crashes.

3.2 Coordinated Administrative Policies

3.2.1 The fire department shall establish and enforce rules, regulations, and standard operating procedures to reach the objectives of this standard.

3.2.2 The fire department shall establish written policies for variations from standard operations.

3.2.3 The fire department shall establish written standard operating procedures for safely driving, riding within, and operating fire department vehicles during an emergency response.

3.2.4 Procedures for emergency response shall emphasize the safe arrival of fire department vehicles and occupants at the emergency scene as the first priority.

3.2.5 The fire department shall establish written standard operating procedures for driving and operating fire department vehicles during a non-emergency response.

3.2.6 Fire department members shall be trained to operate specific vehicles or classes of vehicles before being authorized to drive or operate such vehicles.

3.2.7 Members shall not be expected to or permitted to drive or operate any vehicles for which they have not received training.

3.2.8 The authority having jurisdiction shall ensure that all vehicle drivers/operators possess a valid vehicle operator's license as required by the province of New Brunswick.

4 Training and Education

4.1 General

4.1.1 The fire department shall establish and maintain a driver training and education program with the goal of preventing vehicular crashes, deaths, and injuries to members, employees, and the public.

4.1.2 The fire department shall provide, to all fire department members, driver training and education that are commensurate with the duties and functions members are expected to perform, in order to ensure that they are able to perform their assigned duties in a manner that does not pose a hazard to themselves, other members, or the general public.

4.1.3 Members shall be provided with driver training and education appropriate for their duties and responsibilities before being permitted to operate fire department vehicles or apparatus.

4.2 Training Frequency

4.2.1 Driver training shall be provided for all qualified driver/operators as often as necessary to meet the applicable requirements of this chapter.

4.2.2 Annual driver training shall have hands-on exercises using actual fire apparatus.

4.2.3 Whenever changes in driving procedures or technology are introduced in the work environment, training and education shall be provided for all affected members.

4.2.4 Whenever new or unfamiliar vehicles are placed into service, training and education relating to those vehicles shall be provided for all affected members.

4.2.5 New vehicle training shall identify vehicle limitations, manufacturers' operating recommendations, and any differences between new vehicles previously operated by the affected members.

5.1 Basic Training and Education Requirements

5.1.1 All fire department driver/operators shall be trained in and shall exercise the applicable principles of defensive driving techniques under both emergency and non-emergency conditions.

5.1.2 All fire department members who drive fire service vehicles shall meet the objectives specified in Chapter 2 of NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*.

5.1.3 Fire Apparatus driver/operators shall meet the requirements of NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*, prior to being assigned as a fire apparatus driver/operator.

5.1.4 Fire apparatus drivers/operators shall be familiar with the requirements of New Brunswick Motor Vehicle Act as it applies to fire apparatus.

5.1.5 Fire department apparatus drivers/operators shall be trained to perform the routine tests, inspections, and servicing functions.

5.1.6 The fire department driver training program shall include information on the potential hazards of off-road driving and shall develop written standard operating procedures listing conditions that justify driving on other than paved or hard surface roads.

5.1.7 Fire departments shall train operators for inclement weather driving conditions with emphasis on handling of apparatus, particularly where auxiliary braking devices are to be used.

5.1.8 Where applicable, the fire department driver training program shall include information on the potential hazards of retarders, such as engines, transmissions, driveline retarders, and antilock braking system (ABS) brakes.

5.1.9 The training program should include a review and critique of fire service vehicle crash scenarios, both local and national, to serve as an objective learning experience.

5.2 Instructor Qualifications

5.2.1 The authority having jurisdiction shall be responsible for ensuring that only qualified persons are assigned as instructors in the driver training program.

5.2.2 Fire department training instructors shall, at a minimum, meet the qualifications as deemed by the Office of the Fire Marshal for the Province of New Brunswick.

5.3 Training Site Coordinator

5.3.1 The fire department site coordinator shall monitor the driver training program to ensure the enforcement of departmental safety rules.

5.3.2 The fire department site coordinator or designee shall review with the instructor all driver training activities, including the lesson plan and field training area, prior to the exercise.

5.3.3 The fire department site coordinator or designee shall monitor the use of all safety equipment during training exercises.

5.3.4 The fire department site coordinator or designee shall notify the lead instructor of any situations that could be unsafe.

5.3.5 The fire department site coordinator or designee shall have the authority to stop operations immediately where an event or condition poses an imminent threat of crash or injury.

5.3.6 All field exercises shall be conducted under the supervision of a qualified driving instructor meeting the requirements set forth in Section 4.2

5.3.7 One instructor shall be assigned to each vehicle during the field exercises.

5.3.8 The field exercise training area shall be designed for the maximum safety of all participating personnel, apparatus, and bystanders.

5.3.8.1 Safety procedures shall be established to address the following:

- (1) Segregation of apparatus on the training course during multiple vehicle use should be no more than two vehicles.
- (2) Backing practices and standard hand signals.
- (3) Control of personnel and apparatus in the driver training area.
- (4) Number of supervisory personnel present during training and testing activities.
- (5) Pre-trip safety inspections prior to moving vehicles.

5.3.8.2 Vehicles not participating in the training session shall be restricted from the training area.

5.3.8.3 All field exercises shall be conducted in an area that is secure.

5.3.8.4 Only those personnel involved in the exercise shall be permitted in the field exercise area, and all other participants and observers shall be restricted to a designated safe area.

5.4 Training Records

Individual driver training records that indicate dates, subjects covered, satisfactory completion, and any certificates achieved shall be maintained.

5.4.1 Individual driver training records should include a list of vehicles that the driver is qualified to operate.

6 Laws and Liabilities

6.1 General

6.1.1 Fire department vehicle drivers/operators shall have knowledge of applicable provincial regulations governing the operation of fire service vehicles.

6.1.2 Fire department vehicle drivers/operators shall become familiar with all applicable DOT regulations.

6.1.3 Members who are under the influence of alcohol or drugs shall not drive or operate fire department vehicles under any circumstances.

7 Emergency Response

7.1 General

7.1.1 The authority having jurisdiction shall have written policies governing speed and the limitations to be observed during inclement weather and various road and traffic conditions.

7.1.2 At no time shall driving regulations be less restrictive than provincial motor vehicle laws.

7.1.3 Drivers/operators of fire department vehicles shall bring the vehicle to a complete stop and shall not proceed until it is confirmed that it is safe to do so for any of the following situations:

- (1) Any "stop" signal (i.e., sign, light, or traffic officer)
- (2) Blind intersections
- (3) Intersections where all lanes of traffic cannot be seen by the operator.
- (4) A stopped school bus with flashing warning lights.

7.1.4 Responding emergency vehicles shall stop at all unguarded railroad crossings to ensure that a safe crossing can be made.

7.1.4.1 The driver shall obey all railroad crossing signals even when responding to emergencies.

7.1.4.2 Fire apparatus shall not be driven around railroad crossing gates.

7.1.5 The driver/operator shall maintain a distance in front of the vehicle that is at least equal to the minimum travel distance necessary to stop the vehicle without contacting another object.

7.1.6 Fire department vehicles and apparatus following each other in queue shall maintain an adequate distance to avoid rear-end collisions.

7.1.7 Overtaking and passing other vehicles during emergency response shall be accomplished with extreme caution.

7.1.8 While en route to move-ups or to fill an empty station, apparatus shall be operated in a non-emergency mode, and the driver/operator shall obey all traffic laws.

7.1.9 The fire department shall identify the types of responses that will be made in a non-emergency mode.

7.2 Emergency Response Considerations

7.2.1 The authority having jurisdiction shall establish emergency response procedures to minimize travel times, optimize response safety, and minimize the chances of emergency vehicles meeting at traffic intersections.

7.2.2. When multiple fire service vehicles are responding to an emergency incident from different locations, the vehicle operators shall coordinate their intended response routes to prevent the response vehicles from colliding at road intersections.

7.2.3 That each community with an activation system for traffic lights see to the development of standards, which would address, among other things:

- periodic checks and shall be recorded in a log book
- reporting of mechanical breakdown and/or malfunction to the levels of authority concerned.
- every driver of an emergency vehicle with this device should receive training that would include
 - a) familiarization with the operating procedure
 - b) cautionary standards required.

8 Crash and Injury Prevention

8.1 General

8.1.1 Unsafe conditions shall be corrected immediately by the identifying personnel or shall be reported immediately to personnel with the capability and responsibility of correcting or assessing the condition.

8.1.1.1 The department shall have in place a procedure for implementing the corrective action.

8.1.1.2 Documentation should be established to record the following:

- (1) Date and time that the risk was discovered.
- (2) A brief description of the risk found.
- (3) Any action taken at the time the risk was discovered.
- (4) Date and time that the corrective action was taken.

8.1.1.3 Copies of all risk-related correspondence and documentation when appropriate shall be forwarded to the department's safety officer.

8.1.2 Whenever possible, fire service vehicles shall not be operated in reverse.

8.1.3 The fire department shall develop written standard operating procedures requiring drivers/operators to discontinue the use of manual brake limiting valves, frequently labeled "wet/dry road switch," and requiring that the valve/switch remain in the "dry road" position, where provided on fire department vehicles.

8.1.4 Where members are operating at an emergency incident that places them in potential conflict with motor vehicle traffic, they shall wear NFPA compliant retro reflective trim personal protective equipment.

8.1.4.1 Fire service vehicles shall be utilized as a fend off position from oncoming traffic wherever possible.

8.1.4.2 Where acting as a shield, fire service vehicle warning lights shall remain on, and fluorescent and retroreflective warning devices such as traffic cones, illuminated warning devices such as highway flares, or other warning devices shall be used to warn oncoming traffic of the emergency operations and the hazards to members operating at the incident.

8.1.5 Hose-loading procedures shall be specified in written standard operating procedures.

8.1.5.1 All members involved in the hose-loading procedures shall be trained in these procedures.

8.1.5.2 Hose-loading operations shall be permitted to be performed on moving fire apparatus only where all of the following conditions are met.

8.1.5.3 A member, other than those members loading hose, shall be assigned as a safety observer. The safety observer shall have an unobstructed view of the hose-loading operation and shall be in visual and voice contact with the apparatus driver/operator.

8.1.5.4 Non-fire department vehicular traffic shall be excluded from the area or shall be under the control of authorized traffic control persons.

8.1.5.5 No member shall be allowed to stand on the tail step, side steps, running boards, or any other location on the apparatus while the apparatus is in motion.

8.1.5.6 Members shall be permitted to be in the hose bed but shall not be permitted to stand while the apparatus is in motion.

8.1.5.7 Prior to the beginning of each hose-loading operation, the situation shall be evaluated to ensure safety compliance with all provisions of the standard operating procedure.

8.2 Fire Service Vehicle Drivers/Operators' Responsibility.

8.2.1 Fire service vehicles shall be operated only by members who have successfully completed an approved driver training program or by student drivers who are under the direct supervision of a qualified driver.

8.2.2 Drivers/operators of fire service vehicles shall be directly responsible for the safe and prudent operation of the vehicle under all conditions.

8.2.3 Where the driver/operator is under the direct supervision of an officer, that officer shall assume responsibility for the actions of the driver/operator.

8.2.4 During non-emergency travel, drivers/operators of fire service vehicles shall obey all traffic control signals and signs and all the laws and rules of the road in the jurisdiction for the operation of motor vehicles.

8.2.5 During non-emergency travel, emergency warning lights shall not be used.

8.2.6 All fire service vehicle drivers/operators shall adhere to fire department rules, regulations, orders, and standard operating procedures of the

authority having jurisdiction, even where operating in a jurisdiction other than their own.

8.2.7 Drivers/operators shall not move fire department vehicles until all persons on the vehicle are seated and secured with seat belts in approved riding positions, other than as specifically allowed in 8.3.3.

8.3 Responsibility of Persons Riding in or on Fire Service Vehicles.

8.3.1 All persons riding in or on fire service vehicles or apparatus shall be seated in approved riding positions and shall be secured to the vehicle by seat belts whenever the vehicle is in motion.

8.3.1.1 Riding on tail steps, side steps, running boards, or in any other exposed position shall be specifically prohibited.

8.3.1.2 Standing while the vehicle is in motion shall be specifically prohibited.

8.3.2 The number of members riding on a piece of apparatus should be limited by the number of seats and seat belts that are provided in approved locations.

8.3.3 Members actively performing necessary emergency medical care while the vehicle is in motion shall be secured to the vehicle by a seat belt, or by a safety harness designed for occupant restraint, to the extent consistent with the efficient provision of such emergency care.

8.3.4 All persons in the vehicle, other than those covered in 8.3.3, shall be seated and belted in approved riding positions while the fire service vehicle is in motion.

8.3.5 Members riding in fire service vehicles shall remain seated and secured until the vehicle comes to a complete stop.

9 Crash Review

9.1 General

9.1.1 The authority having jurisdiction should be responsible for developing and implementing a crash investigation procedure.

9.1.2 All crashes, injuries, fatalities, and violations of rules, regulations, laws, and orders involving fire service vehicles should be investigated, the root causes shall be determined, and full documentation shall be provided.

9.1.3 The authority having jurisdiction shall take whatever corrective action is necessary to avoid repetitive occurrences of incidents identified in 9.1.2.

9.1.4 The training program should include a review and critique of crash scenarios, both local and national, to serve as an objective learning experience.

10 Vehicle and Apparatus Care

10.1 Fire Department and Aircraft Rescue/Fire-Fighting Vehicles and Apparatus.

10.1.1 The fire department shall consider the safety and health of vehicle occupants as primary concerns in the specification, design, construction, acquisition, operation, maintenance, inspection, and repair of all fire department vehicles.

10.1.2 Where tools, equipment, or self-contained breathing apparatus (SCBA) are stored within enclosed seating areas of fire department vehicles, such items shall be secured by either a positive mechanical means that holds the item in its stored position or in a compartment with a positive latching door.

10.1.3 The means of holding the item in place or the compartment shall be designated to minimize injury, during travel, to persons in the enclosed area of the vehicle resulting from loose equipment that moves in the event of a crash, a rapid deceleration, or a rapid acceleration.

10.2 Inspection, Maintenance, and Repair of Vehicles.

10.2.1 A member assigned by the authority having jurisdiction shall be responsible for the readiness of the vehicle prior to operation of the vehicle.

10.2.2 To identify and correct unsafe conditions, fire apparatus shall be inspected at least weekly and within 24 hours after being used in emergency response.

10.2.2.1 If repairs are required, the apparatus shall be placed out of service until repairs are completed.

10.2.2.2 The apparatus shall be re-inspected prior to being placed in emergency service.

10.2.3 A preventative maintenance program shall be established, and records shall be maintained.

10.2.3.1 Maintenance, inspections, and repairs shall be performed by qualified persons in accordance with the manufacturer's instructions.

10.2.3.2 Operating and maintenance instructions and manuals shall be provided and maintained for those performing routine tests, inspections, and servicing functions.

10.2.4 The authority having jurisdiction shall establish a procedure to remove unsafe vehicles from service.

10.2.4.1 This procedure shall include a list of defects considered unsafe by the authority having jurisdiction and the individual with the responsibility and authority to remove a unit from service.

10.2.4.2 Any fire service vehicle found to be unsafe shall be taken out of service immediately until, repaired.

10.2.5 All aerial devices shall be inspected and service tested in accordance with the applicable requirements.

10.3 Vehicle Records

10.3.1 A complete inspection, maintenance, and repair record of every vehicle used by the authority having jurisdiction shall be maintained by a responsible person or persons.

10.3.2 The record shall include the date and description of all maintenance, repairs, and provincial inspections performed on the vehicle.