

# Office of the Fire Marshal • Bureau du prévôt des incendies

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# **BULLETIN N° 2004-06**

To: Fire Chiefs Destinataires : Chefs des services d'incendie

From: John C. McLaughlin Expéditeur : John C. McLaughlin

Date: October 14, 2004 Date: Le 14 octobre 2004

# RE: RESPONSIBILITIES UNDER THE MOTOR VEHICLE ACT

Firefighting is an inherently dangerous vocation. It involves commitment, specialized training and selfless courage. These qualities, which are evident throughout the New Brunswick Fire Service, are exactly what carry us collectively through crisis, constant improvement and above all the continuing protection of life and property of our fellow citizens. I am both humbled and proud in my knowledge that the NB Fire Service will continue to collectively move forward and grow. This is the nature of this team.

In keeping with FMO Bulletins 2001-25, 2002-18 and 2004-05 and pursuant to ongoing consultations with the New Brunswick Association of Fire Chiefs as well as the Fire Marshal Fire Service Training Standards Advisory Committee, I strongly recommend that the inclusion of the attached (NB modified) Chapter 7 of NFPA 1451 Standard for a Fire Service Operations Training Program, 2002 Edition and its appendices be considered in all NB Fire Service Standard Operational Procedures and/or Standard Operation The tragic consequences of Guidelines. crashes involving Fire Service Apparatus need to be averted henceforth. Raising awareness, training as well as ongoing consultations with all stakeholders resulting in targeted actions in this regard will make all New Brunswickers safer.

#### OBJET : RESPONSABILITÉS EN VERTU DE LA LOI SUR LES VÉHICULES À MOTEUR

La lutte contre les incendies est, par sa nature, une vocation dangereuse. Elle exige un engagement, une formation spécialisée et un courage admirable. qualités, que possèdent les services Ces d'incendie Nouveau-Brunswick, du exactement ce qui nous permet collectivement de traverser une situation de crise, de nous améliorer constamment et surtout de protéger de façon continue la vie et les biens de nos concitoyens. Je suis heureux et fier de savoir que les services d'incendie du Nouveau-Brunswick continueront de se développer et de progresser collectivement. C'est une caractéristique de cette équipe.

Faisant suite aux bulletins 2001-25, 2002-18 et 2004-05 du BPI et aux consultations continues avec l'Association des chefs pompiers du Nouveau-Brunswick et le Comité consultatif du prévôt des incendies sur les normes de formation des services d'incendie, je recommande fortement que le chapitre 7 de la norme 1451 de la NFPA portant sur un programme de formation aux opérations des services d'incendie (adaptée au Nouveau-Brunswick) annexée, version de 2002 et ses annexes soient pris en compte dans des Procédures opérationnelles normalisées ou des Directives opérationnelles normalisées services d'incendie du Nouveau-Brunswick. Il faut prévenir immédiatement les conséquences tragiques des collisions impliquant des engins d'incendie. Grâce à une sensibilisation et à une formation accrues et aux consultations continues auprès de tous les intervenants qui donnent lieu à des mesures ciblées, les Néo-Brunswickois seront plus en sécurité.



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In addition to the Fire Marshal Fire Service Training Standards Advisory Committee research and strengthening of Fire apparatus driver training they are presently examining NFPA 1451 in its entirety. I would encourage all to actively exchange your opinions and ideas in this regard with your representative NBAFC and/or FMFSTAC member(s) by following established communication paths.

En plus de la recherche effectuée par le Comité consultatif du prévôt des incendies sur les normes de formation des services d'incendie et de la formation accrue des conducteurs de camions d'incendie, la norme 1451 de la NFPA est actuellement étudiée dans son intégralité. Je vous encourage tous à exprimer vos points de vue et à soumettre vos suggestions à votre représentant de l'ACPNB ou à un membre du CCPINFSI, en suivant les voies de communication établies.

I thank you for your attention and action in this regard.

Je vous remercie de votre attention et de votre suivi.

John C. McLaughlin Fire Marshal / Prévôt des incendie (NB modified) Chapter 7 of NFPA 1451 Standard for a Fire Service Operations Training Program, 2002 Edition

#### 7.1 General

- 7.1.1\* The authority having jurisdiction shall have written procedures 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 the New Brunswick **Motor Vehicle Act**.
- 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 of to fill an empty station, apparatus shall be operated in a non-emergency mode and the driver/operator shall observe all traffic laws.
- **7.1.9\*** The fire department shall identify the types of responses that will be made in 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 various locations, the vehicle operators shall coordinate their intended response routes to prevent the response vehicles from colliding at road intersections.

#### **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.7.1.1

Each jurisdiction or fire department could have its own rules governing the speed of fire service vehicles when responding to emergencies. Some jurisdictions permit fire apparatus vehicles to exceed posted speed limits, while others limit emergency vehicles to the posted speed limit. All drivers should have a thorough knowledge of the rules governing speed for fire service vehicles in their own jurisdictions and the jurisdictions of their mutual aid partners.

A.7.1.3

Crashes at intersections can contribute to both civilian and fire department personnel deaths and injuries while fire department vehicles are responding to or returning from an emergency incident. Coming to a complete stop where there are any intersection hazards and proceeding only when the driver can do so safely can reduce crashes and risk of injury or death. It is recommended that intersection control devices be installed that allow emergency vehicles to control traffic lights at intersections.

A.7.1.4

It is recommended that where railroad crossings are unguarded or where visibility is limited for any reason, including geography or weather, the fire apparatus should come to a complete stop before entering the crossing and should not proceed to cross until a crew member on foot outside the vehicle has signaled that it is safe to cross.

Where the vehicle driver is responding alone or where, due to patient care, the crew member is unable to assist, the vehicle driver should idle the engine; turn off all radios, fans, wipers, and other noise-producing equipment in the cab; lower the windows; and listen for a train's horn before entering a grade crossing.

A.7.1.5

Operating space is that area around the vehicle that enables the driver to stop or turn in order to avoid another vehicle or object. The necessary following distance varies depending on the type of pavement and whether the roadway is wet or dry, the speed of the vehicle, the condition of the braking system, and the reaction time of the driver. Rear-end collisions often occur because of inadequate operating space.

Table A.7.1.5(a) through Table A.7.1.5(c) were developed for educational rather than legal or engineering purposes. They provide recommended following distances based on vehicle speed, driver reaction time, and vehicle weight.

Table A.7.1.5(a) Recommended Following Distances for Light Two-Axle Trucks

	Spee	d		Driver Reaction Distance		Vehicle Braking Distance		Total Stopping Distance	
km/hr	mi/hr	m/sec	ft/sec	m	ft	m	ft	m	ft
16	10	5	15	3	11	2	7	6	18
24	15	7	22	5	17	5	17	10	34
32	20	9	29	7	22	9	30	16	52
40	25	11	37	9	28	14	46	23	74
48	30	13	44	10	33	20	67	31	100
56	35	16	51	12	39	28	92	40	131
64	40	18	59	13	44	38	125	52	169
72	45	20	66	15	50	50	165	66	215
80	50	22	73	17	55	69	225	85	280
89	55	25	81	19	61	84	275	102	336
96	60	27	88	20	66	110	360	130	426

Table A.7.1.5(b) Recommended Following Distances for Heavy Two-Axle Trucks

	Speed				Driver Reaction Distance		Vehicle Braking Distance		Total Stopping Distance	
km/hr	mi/hr	m/sec	ft/sec	m	ft	m	ft	m	ft	
16	10	5	15	3	11	2	10	6	21	
24	15	7	22	5	17	7	22	12	39	
32	20	9	29	7	22	12	40	19	62	
40	25	11	37	9	28	20	64	28	92	
48	30	13	44	10	33	28	92	38	125	
56	35	16	51	12	39	38	125	50	164	
64	40	18	59	13	44	50	165	64	209	
72	45	20	66	15	50	64	210	79	260	
80	50	22	73	17	55	78	255	99	310	
89	55	25	81	19	61	99	310	113	371	
96	60	27	88	20	66	113	370	133	436	

Table A.7.1.5(c) Recommended Following Distances for Three-Axle Trucks and Combinations

	Spe	ed		Driver Reaction Distance		Vehicle Braking Distance		Total Stopping Distance	
km/hr	mi/hr	m/sec	ft/sec	m	ft	m	ft	m	ft
16	10	5	15	3	11	4	13	7	24
24	15	7	22	5	17	9	29	14	46
32	20	9	29	7	22	15	50	22	72
40	25	11	37	9	28	24	80	33	108
48	30	13	44	10	33	35	115	45	148
56	35	16	51	12	39	49	160	61	199
64	40	18	59	13	44	63	205	76	249
72	45	20	66	15	50	79	260	99	310
80	50	22	73	17	55	98	320	114	375
89	55	25	81	19	61	119	390	138	451
96	60	27	88	20	66	142	465	162	531

- A.7.1.6 A rule of thumb established by some training organizations standardizes the traveling distance for vehicles and apparatus traveling in queue as a 5-second interval for non-responding and 8-second interval for responding apparatus and vehicles. This margin would provide adequate safe separation during speed-up and braking maneuvers.
- A.7.1.7 When it is necessary to pass other vehicles, the pass should be made to the left side of the other vehicle. Passing on the right side of other vehicles should be avoided.
- A.7.1.9 Many fire department responses can be done in a non-emergency mode. Such responses can include the following:
  - (1) Lock-outs
  - (2) Dumpster fires (no exposures)
  - (3) Investigation of unknown odors
  - (4) Assisting police
  - (5) Standby for bomb scare