

# WINDSOR FIRE & RESCUE SERVICES



## APPARATUS DRIVER/OPERATOR STANDARD

**Candidate Name:** \_\_\_\_\_

**Station Captain Name:** \_\_\_\_\_

**Date Of Completion:** \_\_\_\_\_

## **CONTENTS**

|                  |  |
|------------------|--|
| <b>CHAPTER 1</b> | <b>ADMINISTRATION</b>                                |
| <b>CHAPTER 2</b> | <b>RESPONSIBILITIES OF THE CANDIDATE</b>             |
| <b>CHAPTER 3</b> | <b>RESPONSIBILITIES OF THE OFFICER</b>               |
| <b>CHAPTER 4</b> | <b>THE HIGHWAY TRAFFIC ACT</b>                       |
| <b>CHAPTER 5</b> | <b>WINDSOR FIRE &amp; RESCUE SERVICES POLICY</b>     |
| <b>CHAPTER 6</b> | <b>PREVENTIVE MAINTENANCE</b>                        |
| <b>CHAPTER 7</b> | <b>APPARATUS EQUIPPED WITH A FIRE PUMP</b>           |
| <b>CHAPTER 8</b> | <b>APPARATUS EQUIPPED WITH AN ELEVATING PLATFORM</b> |

*Revised: April 2007*

# CHAPTER 1

## **CHAPTER 1: Administration**

**1-1** Scope. This standard identifies the professional levels of competence required of the fire apparatus driver/operator and the role of the station officer in maintaining this standard. Under this standard there are circumstances when Training Services must complete a qualification and others where the station captain can complete the qualification process. Please refer to applicable notices issued by the Office of the Assistant Chief as a result of Labour/Management agreements.

**1-2** Purpose. The purpose of this standard is to specify in terms of performance objectives, the requirements of professional competence required for service as a fire apparatus driver/operator.

**1-3** This standard is meant to be a fluid document. It may be changed and updated from time to time.

# CHAPTER 2

## **CHAPTER 2: Responsibilities Of The Candidate**

**2-1** All fire fighters, who are candidates to drive fire department vehicles or apparatus under emergency response conditions, shall meet all of the specified objectives before being certified as a fire apparatus driver/operator by an approved member of the Training Division or Station Captain.

**2-2** Each of the performance objectives for the fire apparatus driver/operator shall be performed safely, with competence, in its entirety and in a timely fashion.

**2-3** Where the word "demonstrate" is used in this standard, it requires that actual performance and operation be accomplished.

**2-4** The fire apparatus driver/operator candidates shall obtain permission from the Station Captain to commence formal training on any given Windsor Fire Rescue apparatus, unless the candidate is completing an increment. In this circumstance it is mandatory that the candidate train on the required vehicle with the Station Captain's guidance.

**2-5** The fire apparatus driver/operator candidates shall maintain a driver operator training record for all Fire Department Vehicles being qualified on.

**2-6** Upon qualification, it is the responsibility of the fire apparatus driver/operator to maintain the standard to the vehicle upon which he/she has been qualified.

**2-7** The Fire apparatus driver/operator must maintain a valid class licence to operate department vehicles.

# CHAPTER 3

### **CHAPTER 3: Responsibilities Of The Officer**

**3-1** The Station Captain, under the direction of the Chief Training Officer, is responsible for the training of the fire apparatus driver/operator candidate to meet the qualifications of this standard.

**3-2** If Training Services is performing the qualification, the Station Captain will fill out a driver qualification request form after the Station Captain has prepared the apparatus driver/operator candidate. He shall then send the request in to Training Services and a date will be scheduled to perform the qualification as soon as possible.

**3-2-a** If the Station Captain is performing the qualification, they will fill out a driver qualification form after the Station Captain has prepared the apparatus driver/operator candidate.

**3-3** If Training Services is performing the qualification, the Training Captain will visually check the fire apparatus driver/operator candidates' Class "DZ" license before testing and record the information on the testing form.

**3-3-a** If the Station Captain is performing the qualification, they will visually check the fire apparatus driver/operator candidates Class "DZ" licence before testing and record the information on the testing form.

**3-3-b** Prior to commencing the Qualification, the Station Captain Or Training Captain shall receive the completed Driver Operator Candidate Training Record for the Fire Department Vehicle involved.

**3-4** If Training Services is performing the qualification, a Training Captain will conduct an evaluation and test to determine if the fire apparatus driver/operator candidate meets the Windsor Fire and Rescue Service's performance standard and qualifies to drive and operate a specified apparatus.

**3-4-a** If The Station Captain is performing the qualification, they will conduct an evaluation and test to determine if the fire apparatus driver/operator candidate meets the Windsor Fire and Rescue Service's performance standard and qualifies to drive and operate a specified apparatus.

**3-5** The Station Captain shall take corrective measures, as warranted, if the fire apparatus driver/operator falls below the standard for which he/she has been qualified. If necessary, this will consist of notifying the District Chief, suspending driving privileges, promptly arranging for the necessary training and re-qualification by Training Services. All incidents shall be thoroughly documented and forwarded to Training Services and the Assistant Chief's office, via the chain of command.

**3-6** If the Station Captain is performing the qualification and the candidate has previously completed this standard, then the Station Captain need only review this standard with the candidate.

**3-7** Where a form or section requires the Station Captain's signature, the Captain will be required to both sign the area and print their name next to the signature.



# CHAPTER

# 4

## **CHAPTER 4: The Highway Traffic Act**

**NOTE: All W.F.R.S. fire apparatus driver/operators are to comply with all sections of the Highway Traffic Act at all times. Listed below are excerpts taken from the H.T.A.**

**4-1** The fire apparatus driver/operator must be legally licensed to drive a motor vehicle on a highway - Class DZ

Licence Exception:

**22.** Any class of driver's licence, except a Class G1, G2, L, M, M1, M2 or R driver's licence, is authority for,

- (a) a police officer or an officer appointed for carrying out the provisions of the Act to drive a motor vehicle of any class including a vehicle equipped with air brakes, other than a motorcycle, on a highway in an emergency and in the performance of his or her duties under the Act;
- (a.1) a firefighter, as defined in subsection 1 (1) of the Fire Protection and Prevention Act, 1997, to drive a motor vehicle of any class including a vehicle equipped with air brakes, other than a motorcycle, on a highway in an emergency and in the performance of his or her duties under that Act; and**
- (b) a motor vehicle mechanic to drive a motor vehicle of any class including a vehicle equipped with air brakes, other than a motorcycle, on a highway while carrying out a road test of the vehicle in the course of servicing it. O. Reg. 340/94, s. 22; O. Reg. 115/03, s. 1.

Captain's Signature \_\_\_\_\_

**4-2** The fire apparatus driver/operator must obey all laws of the Highway Traffic Act. While responding to an emergency situation, however, certain exemptions are permitted providing that certain conditions are complied with.

Definition Of Fire Department Vehicle

**61.** In this Part,

“ambulance” includes an ambulance as defined in the *Ambulance Act* and a cardiac arrest emergency vehicle operated by or under the authority of a hospital;  
 (“ambulance”)

**“fire department vehicle”** includes an emergency crash extrication vehicle owned and operated by a rescue organization approved by the Minister in writing for the purposes of this Part and a vehicle designated in writing by the Fire Marshal of Ontario as a **“fire department vehicle”**; (“véhicule de pompiers”)

“motor vehicle” does not include a motor assisted bicycle; (“véhicule automobile”)

“vehicle”, in addition to the meaning set out in subsection 1 (1), includes a conversion unit and a trailer converter dolly. (“véhicule”) R.S.O. 1990, c. H.8, s. 61.

Captain’s Signature\_\_\_\_\_

**4-2**The fire apparatus driver/operator is permitted to exceed the speed limit while responding to an emergency call.

**Note: While the HTA allows for the speed limit to be exceeded when road, weather and traffic conditions allow, Drivers and Officers shall ensure that W.F.R.S. policies and procedures are followed at all times.**

## **Rate of speed**

**128. (1)** No person shall drive a motor vehicle at a rate of speed greater than,

- (a) 50 kilometres per hour on a highway within a local municipality or within a built-up area;
- (b) despite clause (a), 80 kilometres per hour on a highway, not within a built-up area, that is within a local municipality that had the status of a township on December 31, 2002 and, but for the enactment of the *Municipal Act, 2001*, would have had the status of a township on January 1, 2003, if the municipality is prescribed by regulation, unless a by-law is passed under subsection (2), (4), (5) or (6) or a regulation is made under subsection (7) prescribing a different rate of speed;
- (b.1) 80 kilometres per hour on a highway designated by the Lieutenant Governor in Council as a controlled-access highway under the *Public Transportation and Highway Improvement Act*, whether or not the highway is within a local municipality or built-up area;
- (c) the rate of speed prescribed for motor vehicles on a highway in accordance with subsection (2), (4), (5), (6), (6.1) or (7); or
- (d) the maximum rate of speed posted in a construction zone designated under subsection (8). R.S.O. 1990, c. H.8, s. 128 (1); 1997, c. 26, Sched.; 2002, c. 17, Sched. C, s. 15 (1); 2002, c. 18, Sched. P, s. 29 (1).

**Fire department vehicles and police vehicles**

(13) The speed limits prescribed under this section or any regulation or by-law passed under this section do not apply to,

- (a) a fire department vehicle as defined in section 61 while proceeding to a fire or responding to, but not returning from, a fire alarm or other emergency call;
- (b) a motor vehicle while used by a person in the lawful performance of his or her duties as a police officer; or
- (c) an ambulance as defined in section 61 while responding to an emergency call or being used to transport a patient or injured person in an emergency situation. R.S.O. 1990, c. H.8, s. 128 (13).

Captain's signature\_\_\_\_\_

**4-4** The fire apparatus driver/operator, **after stopping the vehicle**, may proceed without a green light, if safe to do so.

**Red light**

(18) Every driver approaching a traffic control signal showing a circular red indication and facing the indication shall stop his or her vehicle and shall not proceed until a green indication is shown. R.S.O. 1990, c. H.8, s. 144 (18).

**Exception - emergency vehicle**

(20) Despite subsection (18), a driver of an emergency vehicle, **after stopping** the vehicle, may proceed without a green indication being shown if it is safe to do so. R.S.O. 1990, c. H.8, s. 144 (20).

Captain's Signature\_\_\_\_\_

**4-5** The fire apparatus driver/operator, and all passengers, shall wear the complete seat belt assembly in a properly adjusted and securely fastened manner.

**EXCEPTION:**

**6.** A firefighter occupying a seating position behind the driver's cab in a **fire department vehicle** as defined in clause 61 (b) of the Act is exempt from subsection 106 (4) of the Act where the performance of work activities makes it impracticable to wear a seat belt assembly. R.R.O. 1990, Reg. 613, s. 6.

**NOTE: This is an exception under the H.T.A., however corporate policy states that all employees shall wear their complete seat belt assembly .**

Captain`s Signature\_\_\_\_\_

**Chapter 4 completed**

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# CHAPTER 5

**Chapter 5: Windsor Fire & Rescue Services Policies**

**5-1** The fire apparatus driver/operator shall have and maintain in their possession a valid Ontario Drivers Licence, minimum class D.Z.

Licence Class \_\_\_\_\_ Licence Number \_\_\_\_\_

Captain's Signature \_\_\_\_\_

**5-2** The fire apparatus driver/operator must respond to a PRIORITY ONE emergency call with all warning lights and audible warning devices sounding. Audible devices include electronic sirens, Federal Q rotary sirens, and air horns. When responding PRIORITY TWO, no warning devices will be used and normal traffic laws will be obeyed.

Captain's Signature \_\_\_\_\_

**5-3** The fire apparatus driver/operator will ensure that all members of the crew are **safely** aboard and seatbelts fastened before he/she moves the vehicle out of the station.

Captain's Signature \_\_\_\_\_

**5-4** The fire apparatus driver/operator will ensure that, when backing or moving an apparatus, the procedure is done in accordance with W.F.R.S. procedures.

Captain's Signature \_\_\_\_\_

**5-5** The fire apparatus driver/operator shall demonstrate their knowledge of streets within their assigned district.

Captain's Signature \_\_\_\_\_

**5-6** The fire apparatus driver/operator shall drive no faster than road, weather, traffic conditions and W.F.R.S. orders, policies and procedures allow.

Captain's Signature \_\_\_\_\_

**5-7** The fire apparatus driver/operator must comply with all W.F.R.S. Standard Operating Procedures, orders, notices and policies that exist with respect to operating the fire apparatus to which they are qualified to operate.

Captain's Signature \_\_\_\_\_

**REFERENCES:** W.F.R.S. standard operating procedures, notices, orders and policies.

**Chapter 5 completed**

**Candidate name:** \_\_\_\_\_

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# CHAPTER 6

**Chapter 6: Preventive Maintenance**

**6-1** The fire apparatus driver/operator shall demonstrate the performance of routine tests, inspections and servicing functions required to assure the operational status of the fire department vehicle, as outlined on the particular vehicles' daily apparatus report. **Reference-Daily Apparatus Report**

Captain's Signature \_\_\_\_\_

**6-2** The fire apparatus driver/operator shall demonstrate the performance of routine tests, inspections and servicing functions required to assure the operational status of the equipment on the fire department vehicle, as outlined on the particular vehicles' inventory sheet. **Reference-Daily Apparatus Report and Vehicle Inventory**

Captain's Signature \_\_\_\_\_

**6-3** The fire apparatus driver/operator shall be familiar with the particular vehicle involved according to it's operations manual. **Reference Intranet**

Captain's Signature \_\_\_\_\_

**6-4** The fire apparatus driver/operator shall identify all gauges and demonstrate their use. **Reference Vehicle Dash and Pump Panel**

Captain's Signature \_\_\_\_\_

**6-5** The fire apparatus driver/operator shall demonstrate the proper procedure for the operational check of air brakes. **Reference Air Brake Handbook MTO Chapter 10**

Captain's Signature \_\_\_\_\_

**6-6** The fire apparatus driver/operator shall demonstrate proper transmission shifting procedures.

Captain's Signature \_\_\_\_\_

**REFERENCES;** Daily Apparatus Report, Vehicle Inventory, W.F.R.S. Operations Manual, W.F.R.S. Driver's Manual, Ministry of Transportation Air Brake Handbook.

**Chapter 6 completed**

**Candidate name:**\_\_\_\_\_

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# CHAPTER 7

**Chapter 7: Apparatus Equipped with a Fire Pump**

**7-1** The fire apparatus driver/operator shall identify the effects of weight and speed on braking and stopping distances. **Reference-page 47 Air Brake handbook, and page 79 of Pumping Apparatus Driver/Operator Handbook.**

Captain's Signature \_\_\_\_\_

**7-2** The fire apparatus driver/operator shall identify the effects of centrifugal force (lateral weight transfer) on vehicles during turning. **Reference- page 81 of Pumping Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**7-3** The fire apparatus driver/operator shall identify the effects of inertia and weight distribution related to changing the heading of direction of a vehicle. **Reference-page 81 of Pumping Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**7-4** The fire apparatus driver/operator shall identify the effects of tire friction related to driving traction, braking traction and cornering traction. **Reference-page 81 of Pumping Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**7-5** The fire apparatus driver/operator shall identify the effects of various weather conditions on the braking, steering control and stopping distances and the ability of the employees to recognize and adapt to these conditions. **Reference-pages 84 & 85 of Pumping Apparatus Driver/Operator Handbook.**

Captain's Signature \_\_\_\_\_

**7-6** The fire apparatus driver/operator shall identify the operating principles of single stage and multiple stage centrifugal fire pumps. **Reference-pages 272 & 273 of the Pumping Apparatus Driver/Operator Handbook.**

Captain's Signature \_\_\_\_\_

**7-7** The fire apparatus driver/operator shall identify the percentages of rated capacity, rated pressures and the capacity in gallons per minute at the rated pressures a class "A" pump is designed to deliver. **Reference-Each individual fire apparatus**

Captain's Signature \_\_\_\_\_

**7-8** The fire apparatus driver/operator shall identify the following conditions that may result in pump damage or unsafe operation, and identify corrective measures:

A) Cavitation **Reference- Pages 337 & 346 Pumping Apparatus Handbook**

B) Leaking fuel, oil or water. **Reference-Pages 49 & 52 Pumping Apparatus Handbook**

C) Overheating: **Reference-Pages 304, 307, 308, & 309 pumping Apparatus Handbook**

D) Unusual Noises

E) Vibrations

F) Water Hammer **Reference-Pages 151 & 586 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-9** The fire apparatus driver/operator shall identify the theory and principles of pumper relief and/or pressure governor valve systems. **Reference-Pages 294 to 297 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-10** The fire apparatus driver/operator, given a fire department pumper shall identify the auxiliary cooling system and demonstrate its function. **Reference-Pages 307 & 308 Pumping Apparatus Handbook.**

Captain's Signature \_\_\_\_\_

**7-11** The fire apparatus driver/operator shall identify the theory and principles in the use of the pressure/volume transfer valve. **Reference-Page 274 Pumping Apparatus Handbook.**

Captain's Signature \_\_\_\_\_

**7-12** The fire apparatus driver/operator, given a fire department pumper and a simulated fire scene, **shall demonstrate** proper manoeuvring and spotting of the apparatus to function from a given source of water. **Reference-Pages 107 to 113 Pumping Apparatus Handbook.**

Captain's Signature \_\_\_\_\_

**7-13** The fire driver/operator, given a fire department pumper, **shall demonstrate** the proper method of power transfer from road to pump.

Captain's Signature \_\_\_\_\_

**7-14** The fire apparatus driver/operator shall identify water supply systems and problems pertaining to:

A) Flow from a dead end main **Reference-Page 156 Pumping Apparatus Handbook**

B) Types of water systems **Reference-Pages 151 to 161 Pumping Apparatus Handbook**

A) Size of mains **Reference-Windsor Utilities- Water Division**

B) Hydrant operations and connections **Reference-Pages 110 to 112 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-15** The fire apparatus driver/operator, given a fire department pumper, **shall demonstrate** the procedures for pumping from:

A) Truck  
Captain's Signature \_\_\_\_\_

B) Draft  
Captain's Signature \_\_\_\_\_

C) Hydrant

Captain's Signature \_\_\_\_\_  
D) Relay  
Captain's Signature \_\_\_\_\_

**7-16** The fire apparatus driver/operator, given a selection of nozzles, shall identify the type, design, operation, nozzle pressure and flow for proper operation of each. **Reference-Vehicle inventory for specific nozzles on each vehicle.**

Captain's Signature \_\_\_\_\_

**7-17** The fire apparatus driver/operator shall identify the method of augmenting water supplies to sprinkler and standpipe systems. **Reference-Pages 106,199, & 347 to 350 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-18** The fire apparatus driver/operator shall identify the following types of fluid pressure encountered in the fire service: **Reference-Pages 385 & 386 Essentials of Fire-fighting 4<sup>th</sup> edition (Or Delmar Glossary)**

A) Flow

B) Residual

C) Static

D) Negative

E) Normal Operating

Captain's Signature \_\_\_\_\_

**7-19** The fire apparatus driver/operator shall identify the principles of friction loss as they relate to:

- A) Internal diameter of hose **Reference-Page 147 Pumping Apparatus Handbook**
- B) Length of hose line **Reference-Pages 147 & 148 Pumping Apparatus Handbook**
- C) Manner in which hose lines are laid **Reference-Page 150 Pumping Apparatus Handbook**
- D) Pressure **Reference-Page 147 Pumping Apparatus Handbook**
- E) Use of appliances **Reference-Pages 188 & 190 Pumping Apparatus Handbook**

F) Use of multiple hose lines **Reference-Pages 195 & 201 Pumping Apparatus Handbook**

G) Use of various nozzles **Reference-Page 189 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-20** The fire apparatus driver/operator shall identify the use of Q-formulas in mathematical calculations as required, to solve the fire department pumper hydraulic problems. **Reference-Pages 185 & 186 Pumping Apparatus Handbook**

Captain's Signature \_\_\_\_\_

**7-21** The Fire apparatus driver/operator, given a fire department pumper, **shall demonstrate** proper back flushing procedures.

Captain's Signature \_\_\_\_\_

**7-22** The Fire apparatus driver/operator, given a fire department pumper, **shall demonstrate** proper winter operating procedures.

Captain's Signature \_\_\_\_\_

**7-23** The Fire apparatus driver/operator, given a fire department pumper, **shall demonstrate** the operating procedures for the foam proportioner including flow rates for the 2.5 and 5 GPM proportioners at different percentages.

Captain's Signature \_\_\_\_\_

**7-24** The fire apparatus driver/operator, given a fire department pumper **shall demonstrate** the procedure used to gate down excessive pressure when supplying different size hose and nozzles and when receiving excessive incoming hydrant pressure.

Captain's Signature \_\_\_\_\_

**REFERENCES:** Daily Apparatus Report, Vehicle Inventory, W.F.R.S. Operations Manual, W.F.R.S. Driver's Manual, I.F.S.T.A. Pumping Apparatus – 2<sup>nd</sup> Edition, Essentials of Firefighting – 4<sup>th</sup> Edition, Engine Company Operations, 2<sup>nd</sup> Edition (Harold Richman), W.F.R.S. notices and S.O.P.'s.

**Chapter 7 completed**

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# CHAPTER

# 8

## **CHAPTER: 8 Apparatus Equipped With An Elevating Platform**

**8-1** The fire apparatus driver/operator shall identify the theories and principles, and demonstrate the operating procedures, for a fire department aerial tower apparatus, in the following areas:

A) Cable Systems                      **Reference-Page 20 & 21 Aerial Apparatus Driver/Operator Handbook**

B) Communications Systems                      **Reference-Page 27 Aerial Apparatus Driver/Operator Handbook**

C) Electrical Systems                      **Reference-Pages 44, 48, and 49 Aerial Apparatus Driver/Operator Handbook**

D) Emergency Operating Systems                      **Reference-Page 18 Aerial Apparatus Driver/Operator Handbook**

E) Hydraulic Systems                      **Reference-Page 17 Aerial Apparatus Driver/Operator**

## Handbook

F) Manual Systems

G) Stabilising Systems **Reference-Pages 144, 145, & 146 Aerial Apparatus Driver/Operator Handbook**

H) Safety Systems **Reference-Sutphen Corporation Operation Manual**

I) Override Systems and Hazards Involved **Reference-Page 23 of the Sutphen Corporation Operation Manual**

**8-2** The fire apparatus driver/operator **shall demonstrate** safe operational limitations

of elevating platform apparatus in the following areas:

**A) Angle Reference-Page 15 Sutphen Corporation Operation Manual**

**B) Ground Conditions Reference-Page 12 & 16 Sutphen Corporation Operation Manual**

**C) Height Reference-Page 26 Sutphen Corporation Operation Manual**

**D) Master Stream Reference-Page 28 & 29 Sutphen Corporation Operation Manual**

**E) Topography Reference-Pages 110 & 111 Aerial Apparatus Driver/Operator Handbook**

**F) Weather Conditions Reference-Page 16 Sutphen Corporation Operation Manual, Section 21 Guidance Note #6-8 (25)**

A) Weight Load **Reference-Each individual vehicle and page 12 of the Aerial Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**8-3** The fire apparatus driver/operator, given a fire department aerial tower apparatus and a simulated fire scene, **shall demonstrate** the proper manoeuvring and positioning of the apparatus for rescue and fire fighting operations. **Reference-Sutphen Corporation Operation Manual**

Captain's Signature \_\_\_\_\_

**8-4** The fire apparatus driver/operator, given a fire department aerial tower apparatus, **shall demonstrate** the method of power transfer from the vehicle or auxiliary engine to the hydraulic or power take-off systems for operation of the equipment. **Reference-Sutphen Corporation Operation Manual**

Captain's Signature \_\_\_\_\_

**8-5** The fire apparatus driver/operator, given a fire department aerial tower apparatus and a simulated scene, **shall demonstrate** the procedures for stabilising the apparatus in the following areas: **Reference-Sutphen Corporation Operation Manual**

- A) Braking
- B) Wheel Chocks
- A) Stabilizer Jacks system
- B) Short jack

Captain's Signature \_\_\_\_\_

**8-6** The fire apparatus driver/operator, given a fire department aerial tower apparatus and a simulated fire scene, **shall demonstrate** operating the aerial tower in:  
**Reference-Sutphen Corporation Operation Manual**

- A) Raising
- B) Lowering
- C) Rotating
- D) Extending
- E) Retracting
- F) Placing to Roof
- G) Positioning at Window

Captain's Signature \_\_\_\_\_

**8-7** The fire apparatus driver/operator, given a fire department aerial tower apparatus, **shall demonstrate** the emergency operating procedures necessary to control aerial tower performance following equipment or power failure.

Captain's Signature \_\_\_\_\_

**8-8** The fire apparatus driver/operator, given a fire department aerial tower apparatus, **shall demonstrate** the proper application of lifting and positioning equipment, using the aerial tower. **Reference-Stokes Litter Basket procedures and pages 196 & 197 Aerial Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**8-9** The fire apparatus driver/operator shall identify the factors affecting the effective range of aerial tower master streams. **Reference-Page 165 Pumping Apparatus Driver/Operator Handbook.**

Captain's Signature \_\_\_\_\_

**8-10** The fire apparatus driver/operator shall identify the causes and hazards of nozzle reaction of aerial tower master streams. **Reference-Page 178 Pumping Apparatus Driver/Operator Handbook.**

Captain's Signature \_\_\_\_\_

**8-11** The fire apparatus driver/operator shall identify the effects that applying water from the top down, into a building, with aerial tower operations, has on the fire. **Reference-Page 109 & 110 Aerial Apparatus Driver/Operator Handbook**

Captain's Signature \_\_\_\_\_

**8-12** The Fire apparatus driver/operator shall identify the pre-piped waterway system and list precautions to be followed while operating e.g. protection of seals while retracting. **Reference-Pages 28 & 29 Sutphen Corporation Operation Manual**

Captain's Signature \_\_\_\_\_

**8-13** The Fire apparatus driver/operator, given a fire department aerial tower apparatus, **shall demonstrate** proper operation of the vehicle cascade system including refilling and operation of air tools. **Reference-Sutphen Operation Manual (Intranet Copy), ESU Manual for refilling bottles.**

Captain's Signature \_\_\_\_\_

**8-14**The Fire apparatus driver/operator shall identify safety precautions to be taken during high wind and lightening conditions. **Reference-Page 16 Sutphen Corporation Operation Manual, Section 21 Guidance Note #6-8 (25)**

Captain's Signature \_\_\_\_\_

**REFERENCES:** I.F.S.T.A. Pumping Apparatus 2<sup>nd</sup> Edition, Aerial Apparatus Driver/Operator Handbook 1<sup>st</sup> Edition, Sutphen Corporation Operation Manual, Section 21 Guidance Note #6 – 8, Sutphen Operation Manual (Intranet Copy), ESU Manual, Stokes Litter Basket procedures

***Revised: October,2007***

**Chapter 8 completed**

**Candidate name:** \_\_\_\_\_

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**Captain name:** \_\_\_\_\_

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