

FIRE FIGHTERS GUIDANCE NOTE # 6-25

ISSUE: SAFETY CONSIDERATIONS FOR FIRE DEPARTMENT TANKERS

Many fire departments throughout Ontario depend on tankers to supply water for fire suppression. Safe operation of tankers can be more demanding than other fire apparatus.

The causes of tanker collisions have been identified as resulting from the following factors:

- **Human Factors** – insufficient training, lack of driver experience, overconfidence, excessive speed, inability to recognize danger signs, lack of or failure to follow SOPs/OGs, disobeying traffic laws, failure to yield right-of-way by civilian drivers.
- **Apparatus Design Factors** – Weight of apparatus, age, high center of gravity, improper design or modification, retro-fitting non-fire apparatus, liquid surge, poor maintenance.
- **Driving Surface Factors** – poor road design not intended to support the weight or stress of fire apparatus, severe grades, sharp curves, unimproved road surfaces, adverse weather conditions, soft road shoulders, limited weight capacity.
- **Emergency Scene Factors** – emergency scene congestion, oncoming traffic at the scene, maneuvering at water shuttle dump and fill sites.

To minimize the danger of accidents with tankers, fire departments should develop SOPs/OG that consider the following recommended practices:

- Operate the tanker at a safe and reasonable speed keeping in mind that partial water tank loads can shift creating significant instability during directional changes or braking.
- The cautionary speed signs that accompany road signs indicating curves in the road should be considered the maximum speed for a tanker driving on these curves.
- Know the weight of your apparatus.

- Keep all of the wheels on the travelled road surfaces if possible keeping in mind that driving on shoulders can create tanker instability.
- Provide training for tanker drivers under various road conditions.
- Tankers should be equipped with back-up alarms and lighting that activates when reversing to illuminate the rear area.
- Be familiar with your response district and the roads within it and whenever possible, avoid poorly constructed or unpaved roads.
- When possible, have at least one firefighter accompany the driver of the tanker.

Other References: GN #1-3 Backing Fire Apparatus
GN #6-2 Fire Fighting Near Water
GN #6-7 Driving Skills for Emergency Apparatus Response
GN #6-10 Highway Traffic Control