

SOUTH PORTLAND FIRE DEPARTMENT

STANDARD OPERATING GUIDELINES

SOG #:	6.241	Effective Date:	5/19/2005
Title:	Winter Pump Operations & Care	# of pages:	3
Category:	Fire Ground Operations	Classification:	Red

1. **PURPOSE:** To have guidelines to help prevent the possibility of pump freeze-ups during the winter months.
2. **PROCEDURES:** In an effort to reduce the possibility of pump freeze-up, this procedure shall be complied with during the time span from December 1st through March 1st of each year, regardless of temperature, and at any other time of the year when the outside temperature is predicted to be 20 degrees Fahrenheit or below.

Pump Drain & Blow-down Procedures

- Insure that the tank to pump valve is closed.
- Open all of the following valves:
 - Deck Gun Line
 - Master Pump Drain
 - Booster Reel Line
 - Remove all discharge caps
 - Open all discharge valves and bleeder valves
 - Open all other drain valves, pressure relief, transfer case cooling lines, and all other drain lines. *Note: Some of these may only be accessible from underneath of the vehicle.*
 - Remove the auxiliary suction cap and open the auxiliary pump suction.
 - On two stage pumps, remove the 4 inch suction inlet (Jaffrey Valve) and suction screen. Using a broom handle open the transfer valve clapper.
- Allow all water to drain from the pump
- Close all of the above valves, bleeders and drains. On two stage pumps, reinstall the 4 inch inlet valve and close. Leave all discharge caps off.
- Attach air compressor hose with air chuck adapter to the end of the booster hose or other external discharge away from the pump. (bumper line etc.)
- Open the pump panel booster line valve and allow pump to fill with air.
- When the pump is full of air, open the pump master drain and allow all the water to be expelled.
- Close the pump master drain (leave the booster line valve open) and allow the pump to refill the air.
- Individually open each separate discharge, and bleeder valves, until all water is expelled. Close each discharge prior to proceeding to the next discharge and allow the air to build up for each individual discharge.
- After all discharges and bleeder valves have been drained and blown down, replace all caps and allow the pump to recharge with air.

- After the pump is refilled with air, open all other drains as specified in 2 f, one at a time, until all water is expelled.
- Insure that all drains are closed and that all caps are in place. Disconnect air line from booster hose. Open, and leave open, the master pump drain. *Note: Keep in mind that prior to priming or pump operations, the master drain will have to be closed. In priming from the booster tank, it may help to open a discharge to allow the pump to fill faster.*

Vehicles Equipped With Foam Systems

On vehicles equipped with foam systems, all foam system bleeder valves shall be opened to insure that no water build-up has occurred in these lines. These trucks are equipped with many of these drains and most are accessible only underneath the vehicle. If water is present, leave open until completely drained before closing.

Cold Weather Operations

- During cold weather operations, it is important that the following precautions be taken.
- Do not shut down nozzles completely. Leave nozzles cracked so that water continues to move.
- Pump operators need to circulate pump water by cracking open the tank filler valve or by cracking open the booster nozzle and placing it in the tank fill.
- Whenever the temperature is at zero or below, and the pump operation is going to be of an extended period, remove all discharge caps and leave off until the pump operation is completed. This will help prevent the possible freeze-up and cracking of caps, elbows, etc.

General

This procedure will help, but obviously it will not prevent freeze-up in all situations and conditions. It is imperative that pump operators stay alert to possible pump freeze-up conditions if possible. After a pumping operation in severe cold weather, (especially if the apparatus is going to remain on scene for an extended time), it is possible, and may be feasible to drain and blow down the pump on scene by using the vehicles or another vehicles air system.

3. REFERENCES:

- None

By Order Of:

Kevin W Guimond

Kevin W. Guimond
Fire Chief