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**Ames Fire Department  
Standard Operating Guidelines**

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Book: 2 – Routine Operations  
Section: II – Apparatus Operations  
Chapter: **3 – Pumps, CAFS and Water Extinguishers**  
Date Approved: 01-15-2009 Revision No.:1 Approved by: 

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**PURPOSE:**

To facilitate correct operation during varied weather operation for pumps, CAFS, and water extinguishers for the Ames Fire Department (AFD).

**POLICY:**

The intent of this policy is to ensure an effective method of continued maintenance for fire apparatus pumps, CAFS, and water extinguishers.

**PROCEDURES:**

**Pumps**

The following procedures should be followed during *warm* weather operation:

- All AFD apparatus with fire pumps should be run with a wet pump to keep seals and valves wet and lubricated.
- To insure proper pump operation, a thorough operational check of the following pump accessories will need to be completed on AFD apparatus during Saturday checks:
  - Tank to pump valve
  - Operation of gauges
  - Pressure relief/control devices
  - Throttle operation
  - Tank refill valve.
- All intake, discharge and drain valves should be exercised to insure proper operation.

The following procedures should be followed during *cold* weather operation:

- Pumps shall be engaged and operated to re-circulate water through pump. While the apparatus is outside, this will help prevent tank water from freezing when the temperature drops below the freezing point.
- Drain booster lines when operating apparatus in temperatures below the freezing point.
- During periods of below freezing temperatures, remove the caps on the pump.
  - This will facilitate the draining of water that may have entered the inlet/outlet neck.
  - Wipe the caps dry and replace to help prevent water from freezing in the neck.

The following procedures should be followed during *extreme cold* weather operation:

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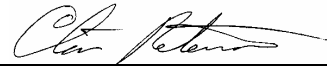
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- During extended periods of extreme cold temperatures (<0°F) pumps may be drained completely at the discretion of the company officer. This should help prevent water from freezing in the pumps and piping.

### **Compressed Air Foam System and Pressurized Water Extinguishers**

The following procedures should be followed:

- Appropriate air pressure for standard operating conditions are as follows:
  - 100psi in pressurized water extinguishers.
  - Minimum of 4100psi in the air cylinder on the CAFS systems found on Rescue 2 and 3.
- During Saturday checks, pressurize the CAFS systems to check for leaks, proper operation of pressure regulator (set at 200psi), and to drain pressure from vessel ensuring proper air pressure in the air cylinder.
- During periods of extreme cold temperatures (<0°F), the removal of water extinguishers or draining the CAFS system may be necessary to prevent damage from freezing.