

COMPRESSED AIR FOAM SYSTEMS

Page Number: **Effective Date:** **Supersedes Editions:**

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07/11/2006

01/01/2005; 07/01/2001

Purpose: *Compressed Air Foam Systems (“CAFS”) are recent developments in fire suppression. CAFS have shown to reduce fire knockdown times, and with less fatigue to firefighters due to reduced weight of charged fire hose. CAFS is a mixture of water, foam concentrate and compressed air bubbles.*

Procedure:

Foam Concentrate and Storage

1. Units 8032, 8033 and 8051 are the unit which have CAFS capabilities, which consists of a foam proportioner for Class A type foam concentrate, foam cell and air compressor.
2. Only Class A foam concentrate shall be used in the foam cell. Class B foam concentrate shall NOT be placed in the foam cell for any reason as severe damage can result.
3. Class A foam concentrate shall be purchased in drum quantities to reduce the chances of inadvertently introducing Class B foam. The drum shall be placed reasonably close to CAFS equipped apparatus to avoid having to carry foam concentrate any farther than necessary.
4. Class A foam does have a material safety data sheet (“MSDS”). Firefighters shall familiarize themselves with the information on the MSDS. Care shall be taken to follow all safeguards recommended by the foam concentrate manufacturer.
5. The level of Class A foam in the cell shall be checked as part of the daily apparatus check. Foam concentrate shall be added when necessary to bring the level up to full, but not overfull.
6. Class A foam concentrate tanks shall be topped-off when the level is 3/4 or less. Otherwise, adding foam concentrate following an incident will not be necessary.

Use of CAFS

7. The proper sequence of establishing CAFS flow is:
 1. Engage pump
 2. Establish water supply to pump and prime if needed
 3. Turn on foam proportioner
 4. Turn on the air compressor
 5. Set discharge pressure to 80 - 100 psi
 6. Open the desired discharge line(s)*
 7. Switch on air discharge to selected discharge line(s)
 8. Set Pressure Governor/Controller
 9. The initial percentage of foam concentrate shall be 0.3%
8. Unlike with foam eductors, the length of a CAFS line is not restricted.

* *Water discharge valves need not be fully opened with CAFS, which allows for “dryer” or “wetter” foam. Experience will guide the operator on the degree to which water discharge valves are opened.*

Standard Operating Procedures are meant only to be guidelines. Actual conditions may warrant alternative actions.

