

COMPRESSED AIR FOAM SYSTEM (CAFS)
Nomally used for Structural or Helibase Protection

If a Resource Order is placed for and the engine is equipped with Compressed Air Foam System (CAFS), add the amounts to the EERA Rate Guide.

Cubic Feet/Minute (CFM)	CAFS Allowance with Pump and Roll <u>RATE</u>
35 – 50 CFM @ 150 PSI	\$ 25.00
51 – 85 CFM @ 150 PSI	\$ 41.00
86 – 120 CFM @ 175 PSI	\$ 55.00
121 – 200 CFM @ 175 PSI	\$ 69.00
201 + CFM @ 200 PSI	\$ 85.00

Criteria:

1. One GPM per one CFM MINIMUM water pump capacity at PSI rates required of the compressor.
2. Pump & Roll 86+ CFM and above must have deck mounted cannon with stacked tips or adjustable tips.
3. Pump & Roll equipment must be able to pump water and foam while moving.
4. CFM, GPM, PSI and foam flow gauges are required.
5. Must be capable of injection of foaming agent into the water line at variable controlled rates on discharge side of pump. (Be proportional)
6. System shall provide full foam delivery within 60 seconds after system is engaged.
7. Operator shall be experienced and knowledgeable of system operation, and be capable of demonstrating their ability to operate the system.

Suggested Accessories

85 CFM and below CAFS:

1000' of 1 ½" or 1 ¾" hose;
1000' of 1" hose
1 gated wye (2 12" x 1 ½" x 1 ½")
3 horseshoe ball valves (1 ½")
1 foam outlet (2 ½" diameter)

86 CFM and above CAFS:

500' of 2 ½" hose, 1000' of 1 ¾" or 1 ½" hose,
2000' of 1" hose
1 gated wye (2 12" x 1 ½" x 1 ½")
3 horseshoe ball valves (1 ½")
1 foam outlet (2 ½" diameter)

PROPORTIONERS

No additional rate will be added to engines which provide proportioners because the rate already includes the cost of proportioners.

DEFINITION OF FOAM SYSTEMS

FOAM SYSTEMS: The apparatus and techniques used to mix concentrate with water to make solution, pump and mix air and solution to make foam, and transport and eject foam. (Systems defined here include compressed air foam and nozzle aspirated.)

COMPRESSED AIR FOAM SYSTEMS (CAFS): A generic term used to describe foam systems consisting of an air compressor (or air source), a water pump, and foam solution.

PROPORTIONER: A mixing system that adds a predetermined volume of liquid foam concentrate to water to form a foam solution.

MANUAL REGULATED PROPORTIONING

- 1) **Suction-side Proportioning System.** A mixing system that works on the suction side of the pump. It is dependent on the pump drawing a vacuum and pulling foam concentrate into the water and running it through the pump.
- 2) **In-Line Proportioning System.** (Eductor). A proportioning system that draws foam concentrate into the water stream by venturi action. The system is sensitive to water flow, liquid pressure, and several other constraints.
- 3) **Around-the-Pump Proportioning System.** A proportioning system situated at the pump that draws foam concentrate into the water stream. The system draws concentrate by venturi action utilizing pump pressure and vacuum. The venturi action is dependent on concentrate head pressure.

AUTOMATIC REGULATED PROPORTIONING

- 1) **Automatic Regulated Proportioning System (ARPS).** A proportioning system that senses water stream pressure or flow and, based on changes in pressure and flow, automatically adjusts the addition of foam concentrate into the water stream to maintain a desired mix ratio.
 - A. **Balanced Pressure Bladder Tank Proportioning System.** This BPPS uses a small diversion of water to force the foam concentrate into the water stream as the water passes through a pressure differential valve. Concentrate is dispensed from a flexible bladder within a pressure rated tank.
 - B. **Balanced Pressure Pump Proportioning System.** This BPPS uses a small positive displacement pump to provide foam concentrate at a venturi into the water stream. Concentrate flow is regulated by a pilot-operated relief valve.
 - C. **Electronically Controlled Direct Injection Proportioning System.** A proportioning system that measures water stream flow and, based on stream flow, electronically and automatically adjusts the addition of foam concentrate into the water stream to maintain a desired mix ratio.

Northwest Interagency
Emergency Equipment Rental Rates - 2004

04/26/2004

Page 20 of 20

RATES OF PAY - Calendar Year 2004

Rates for AD-1 through AD-4

<u>Classification</u>	<u>48 Contiguous States and Other (Per Hr)</u>	<u>Alaska (Per Hr)</u>	<u>Hawaii (Per Hr)</u>
AD-1	\$ 9.96	\$14.56	\$11.88
AD-2	\$11.68	\$16.60	\$14.84
AD-3	\$12.84	\$18.24	\$16.28
AD-4	\$14.60	\$20.44	\$19.40