Sections in red include options for the SmartFOAM system. Delete the options that are not needed for final specification.

**Foam System**

1. The foam system shall be equipped with a Class1 UltraView SmartFOAM Controller and a foam induction pump. The foam induction pump will be a:
	1. Class1 1.7 piston style foam induction pump (12VDC | 24VDC) for use with Class A foam concentrates at a rated output of up to 1.7 gpm (6.5 lpm) and a maximum operating pressure of 400 psi (27.6 bar).
	2. Class1 2.1A piston style foam induction pump (12VDC | 24VDC) for use with Class A concentrates at a rated output of up to 2.1 gpm (8 lpm) and a maximum operating pressure of 250 psi (17.2 bar).
	3. Class1 3.3 rotary gear style foam induction pump (12VDC | 24VDC) for use with Class A and Class B foam concentrates at a rated output of up to 3.3 gpm (12 lpm) and a maximum operating pressure of 400 psi (27.6 bar).
	4. Class1 5.0 rotary gear style foam induction pump (12VDC | 24VDC) for use with Class A and Class B foam concentrates at a rated output of up to 5.0 gpm (19 lpm) and a maximum operating pressure of 250 psi (17.2 bar).
	5. Class1 6.5 rotary gear style foam induction pump (12VDC | 24VDC) for use with Class A and Class B foam concentrates at a rated output of up to 6.5 gpm (24.7 lpm) and a maximum operating pressure of 200 psi (13.8 bar).
	6. Twin pump system comprised of two (2) Class1 6.5 rotary gear style foam induction pumps (12VDC | 24VDC) for use with Class A and Class B foam concentrates at a rated output of up to 13 gpm (49.4 lpm) and a maximum operating pressure of 200 psi (13.8 bar).
	7. Dual pump system comprised of two (2) Class1 foam induction pumps (selected from a though e above). The SmartFOAM Controller shall be capable of controlling both foam induction pumps as two individual systems without having to change the operating screen on the display.
2. The SmartFOAM Controller will show the water flow per minute, foam percentage, total water flowed, and total foam flowed on the main screen without having to press any buttons. The SmartFOAM Controller will maintain a running total of the amount of water and foam used during the current power cycle.
3. The SmartFOAM Controller shall provide on-screen tutorials to assist the user during calibration.
4. The SmartFOAM Controller shall provide multiple language support.
5. The SmartFOAM Controller will allow push-button modification of the foam proportioning rate from 0.1% to 10.0% in 0.1% increments. The SmartFOAM Controller will always begin operation at the preset foam proportioning rate which is configured with a password protected set-up screen.
6. The foam concentrate pump discharge line shall be equipped with a bubble tight check valve, rated at 500 psi (34 bar) to prevent water flow into the concentrate pump from the apparatus fire pump. This valve shall be made from brass or 300 series stainless steel. This valve shall have a cracking pressure of 4-6 psi (0.3-0.4 bar) to prevent flowing concentrate through the pump due to head pressure from the concentrate reservoir.
7. Single tank foam systems shall include flushing capabilities via a three-way flush valve. A switch provided integral to the three-way valve will indicate when the valve is in the “FLUSH” position. The “FLUSH” position will provide fresh water-flushing capabilities to prevent foam concentrate deterioration of the foam pump.
8. Dual tank foam systems shall include a manually operated MDT II dual tank selector valve assembly (or) an air operated ADT dual tank selector valve assembly for switching between A and B tanks. The dual tank selector valve shall have a center selector position to provide fresh water-flushing capabilities to prevent foam concentrate deterioration of the foam pump. The SmartFOAM Controller will inform the user when a “FLUSH” operation is required. The SmartFOAM Controller will not allow the user to flow different types of foam through the system until a “FLUSH” operation is completed.
9. When the manual dual tank selector, single tank flush valve or a single tank system without flushing capabilities is installed a three way bypass valve shall be provided on the discharge of the foam pump to permit operation of the foam concentrate pump for test and calibration purposes without injecting foam concentrate into the water discharge. The bypass valve shall be capable of being panel mounted.
10. The SmartFOAM Controller will protect the foam pump from being run “dry” by showing a “low foam” warning when the low-level tank switch is activated and only allowing the foam pump to run for another sixty (60) seconds before turning off the foam pump and showing a “no foam” warning.
11. In-line, field serviceable foam concentrate strainer(s) shall be installed in the foam concentrate suction line(s).
12. Foam concentrate proportioning systems that use a venturi (either directly or indirectly) to measure water flow, and therefore cause a restriction to that flow, will not be accepted.
13. A Hale EZ-Fill, 5 gpm (12 volt | 24 volt), Foam Refill System shall be installed for refilling the on-board foam cell. The EZ-Fill push-button Smart Switch is used to easily fill or flush the system. The Pickup Wand is attached using a positive seal quick connect fitting and is used to pull the foam concentrate from its container and transfer into the on-board foam cell.