



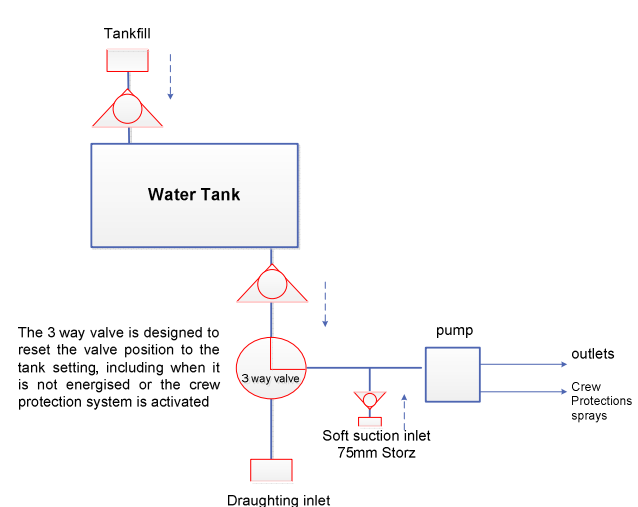


## Operation of 3 Way Valves on Medium and 4.4R Concept Tankers

<b>Scope</b>	This Operations Bulletin applies to CFA members operating Medium Tankers and 4.4R Concept Tankers which are equipped with electro-pneumatic operating 3 way valves (these units can be identified as they are also equipped with Ultra High Pressure (UHP) pumps).
<b>Purpose</b>	To provide information to CFA members regarding the operation of the electro-pneumatic 3 way valve.
<b>Background</b>	It has been identified that when CFA members are operating these appliances they need to be aware if the <b>crew protection system is switched on while draughting, the electro-pneumatic operated 3 way valve will automatically default to the tank supply</b> . This then results in water delivery to all outlets, including the crew protection system being supplied from water remaining in the appliances water tank, and not from the static supply.
<b>Details</b>	<p>The 3 way valve requires to be energised to work in the draughting position. When not energised a spring mechanism in the 3 way valve always brings the valve back to the tank setting. This ensures if the tankers electrical system is disrupted during a burn over, the reserved tank water is available for protection of the crew in conjunction with the pump which will also remain functional unless switched off. This is a safety feature as any hose used for draughting during a burn over will not have protection afforded by the Crew Protection Sprays.</p> <p>In the case of a hydrant water supply being used when the Crew Protection Sprays are switched on, the supply will stay with the reticulated water because it feeds in after the 3 way valve just before the pump. In this situation if a boost length of hose to the hydrant fails during a burn over or the reticulation system fails, water supply to the pump will automatically revert to the tank supply as shown in figure 1. It is important to understand that there is no alarm or light to indicate this change has occurred.</p> <p style="text-align: center;"><b>Medium and 4.4R Tanker electro-pneumatic 3 way valve Reticulation Diagram Fig 1</b></p> <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p><b>Index</b></p> <ul style="list-style-type: none"> <li> Direction of Water Flow through one way valve</li> <li> One way valve</li> <li> coupling</li> <li> 3 way valve</li> </ul> </div> <div style="width: 80%;">  <p>The 3 way valve is designed to reset the valve position to the tank setting, including when it is not energised or the crew protection system is activated</p> </div> </div>



Training material will be updated with this information for new appliances built from now onwards and existing documentation updated on CFA Online.

**Note:** In the event of a burn over when an appliance is connected to an unlimited static or reticulated water supply, the Crew Leader using the dynamic risk assessment process, has an alternative option to the Crew Protection Sprays instead of using hoses and water fogs to defend. This strategy would then include wetting down all fuel around the appliance in addition to using water fogs to protect the crew and essential elements of the appliance from radiant heat and direct flame impingement using as much water as practically possible.

**Further Information**

Contact the Operations Manager Wildfire Planning & Forestry Industry Brigades at CFA Headquarters on (03) 9262 8330.

**Approval**

Chief Officer Euan Ferguson.