SAFETY ALERT

Subject: Operational Maintenance of Gas Safety Valves (Hydraulic Type).

1. Background

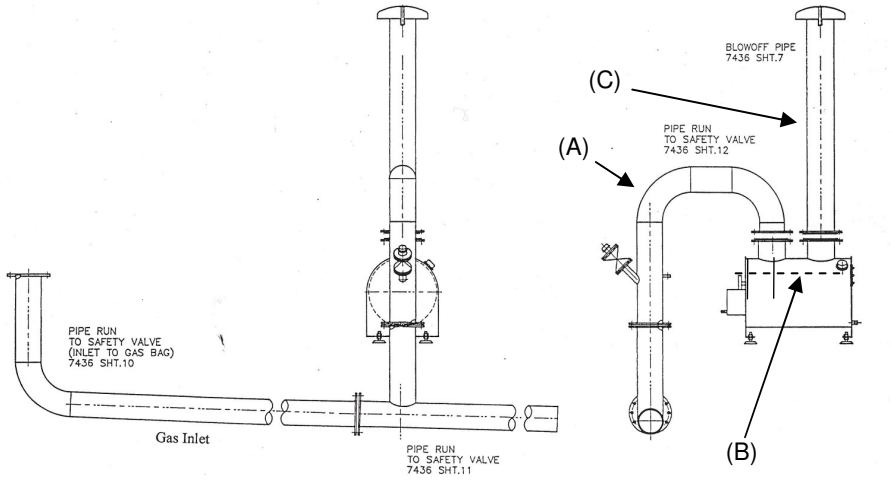
Following an incident on one of our digester sites, it was identified that two of our gas overpressure protection devices (hydraulic type) had been refilled with water instead of the manufacturer's recommended BP antifreeze. The design, installation and operation of these devices, provides a failsafe method of protection for the site gas bag(s) from over pressurisation.
If these vessels are filled with water, then the devices will only remain operable down to 0 Deg. C. instead of -13 Deg. C as when filled as per the manufacturer's recommendation.
The freezing of fluid within the vessel would render the unit inoperable, leading to possible over-pressurisation of the system and possible damage to the unit itself.

2. Action Required

Please ensure that any units installed on your sites are filled, operated and maintained as per the manufacturer's instructions (please refer to O&M Manuals). Including any recommended weekly inspections etc.

3. Principle of Operation (for example only).

The relief valve is a hydraulic overprotection device and works principally like a water seal. The pipe connected to the gas inlet (A) is submerged below the fluid (B) level by the correct amount to create the required pressure within the system. At normal working pressure the difference between the gas pressure and atmosphere is smaller than the insertion depth of the pipe. If the pressure increases the filling medium is pushed down to the point where gas can flow passed the end of the submerged pipe and is vented to atmosphere via pipe (C). Once the excess gas is released the seal is once again made to prevent further escape of gas.



If you have any further questions or queries please contact the Mechanical Policy Engineer (D.Cliffe)

Issue No: SA 2012 /02		Issue Date: 13th January 2012	
Target Audience: All colleagues who carry out tasks on Digester Plants			
Immediate Briefing to Target Audience:	Y	Display on Local Safety Noticeboards:	Y
A signature is required for this brief:	N		
Prepared By: D Cliffe, Mechanical Policy Engineer			
Approved By: T Robinson, Policy & Compliance Manager			