

# Winter Cottage, Goongumpas, St.Day, Cornwall TR16 5JL

[john@layte.com](mailto:john@layte.com)

12 July 2017

Chris Broxton  
South West Water

Dear Ms Broxton

Thank you for your [11 July 2017 email](#) (copy attached). You seem a bit confused regarding open vented central heating systems such as the one installed at Goonhillend in about 1976. The system installed was essentially the same as the schematic below which was downloaded from the Internet on 12 July 2017. It is one of many similar schematics available on the Web and one would assume that it complies with current regulations but does it? As can be seen both the feed and expansion tank (3) and the cold water head tank (4) are fed directly from the mains to identical float valves and no backflow prevention is provided for either tank as was the case at Goonhillend. In order to conduct our survey I had installed a 2500 litre rain water collection tank at ground level and pumped the rain water to a second float valve on tank (4) as and when needed (superimposed on the diagram in green). When your regulation team visited in about April 2015 (some 3 months and several invoices into our survey) Richard Harrison said that I must install backflow prevention for the mains float valve for tank (4) or permanently remove the mains feed to the tank (length A to B). I permanently removed the mains feed to tank (4) but reasoned that if tank (4), full of 5 stage filtered rain water posed a category 5 health risk then tank (3), with identical mains fed float valve and overflow size as tank (4) but full of 40 year old stagnant water with antifreeze and corrosion inhibitor must pose a far higher risk especially as the mains connection to tank (3) is 365 days per annum as opposed to drought only with tank (4) - less than 365 days per annum in Cornwall I would say! Your email states *"I understand that the original plumbing arrangements for your primary circuit was a typical gravity fed feed and expansion (F&E) cistern ....."*. The crucial bit here is *"gravity fed"* and if it had been then I agree I would have been protected but it was mains fed which is why I installed a second cistern higher than the F&E tank to provide gravity feed and thus protection.

I appreciate that all gas boilers have to be installed by Gas Safe registered plumbers and am sure they are jolly good chaps and chapesses but that is not the point. Most, if not all, gas boilers are of the sealed (pressurised) type these days. Systems such as Agas, Rayburns, room heaters and the like are more likely to be open vented and very likely use a mains fed F&E tank as originally in Goonhillend. There are thousands if not tens of thousands of these in existence and it is these households that SWW should warn of the risk to health if they, like Goonhillend, have mains fed F&E tanks. I repeat my request -

**Will SWW please warn all their customers that if their central heating system involves a mains fed F&E tank then their health is at risk.**

My complaint against SWW's regulation team stands in that they should have warned me of the risk. They could see the F&E tank was not gravity fed from the original cold water tank (now rain water distribution tank) because it is installed at a higher level and everyone knows water cannot defy gravity - well almost everyone - Richard Harrison's "violation" claim in his [8 July 2015 letter](#) regarding the downstairs shower posing a risk because the hose could reach the shower base would require that water to defy gravity!

The rest of your letter is noted and will be responded to in due course as it is as equally flawed as this.

Yours sincerely

JH Layte

