

01 September 2020

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### **Re: Water Supply Quality Review Blaenau Gwent**

Point 2.1.4 Suggests schools could be closed due to high TVC counts. This approach can be deemed as over cautious. Re-sampling & disinfection of the systems is a satisfactory approach to avoid any kind of closure.

Point 2.1.5 states that TVC is a general bacteria count which at high levels could prevent water from being used as drinking water, it was noted during my review that many TVC samples had been taken from hot water systems, this is unusual and generally TVC sample analysis from cold water systems would be deemed necessary and hot system TVC samples would be inconclusive. Ecoli & coliforms was not noted in any sample analysis.

Legionella analysis taken does not state if it is pre or post flush, To ensure the sample is representative of the water flowing around the system and not just of the area downstream of the fitting, samples should be taken from separate hot and cold outlets rather than through mixer taps or outlets downstream of TMVs or showers. Samples should be clearly labelled with their source location and if collected pre- or post-flushing, This can have a major impact on the end result.

The HSG 274 states that following Legionella positive counts a Legionella Risk Assessment review should be carried out, I can see no evidence that this has taken place. Disinfection works have been carried out in many cases however should there be little used outlets or blind ends (dead leg pipework) or any other system issues not identified the water systems can quickly re-colonise with bacteria and render disinfections ineffective.

It has been stated in the report that due to high bacteria counts found in the water system that schools would not open due to this analysis, in this circumstance point of use bacteria filters could be installed on local outlets / spray heads to eliminate risk and allow schools to reopen whilst an engineering solution for the high bacteria counts is found.

During my review of the Blaenau Gwent Log books, schematic drawings had not been provided, accurate schematic drawings would be able to identify suitable drinking water outlets and subsequent labelling of outlets would ensure accurate TVCC sampling for drinking water purposes.

During shutdown periods (school holidays and the covid outbreak as examples) all little used outlets should be flushed and no records have been provided, a suitable flushing regime could potentially prevent bacteria proliferating in the water systems.

It was stated in point 6.1.1 that flushing of water systems is the recognised action taken to reduce system bacteria control however records detailing this have not been provided.

Kind regards,

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