**Appendix – Supplementary material**

# Option Regulation 31(4)(b): Deemed Authorised

Leaving Regulation 31(4)(a) to one side, there is a further possibility under Sub-section b), which covers products and substances automatically deemed by the Secretary of State as unlikely to affect water quality and where approval under a) is not required. What is or is not allowed under this Sub-section is discussed in DWI Advice Sheet 8 (DWI 2018a) where the Secretary of State is deemed satisfied if:

* there is only a small surface area contact ratio with the water;
* it does not give rise to unintended odour/flavour; and
* it does not support microbial organisms.

In Advice Sheet 8 there is an **exemplar list of products** deemed to fall into this category plus a **small surface area contact ratio calculation** (DWI 2018a).

## The Exemplar List

The exemplar list provides a list of products considered to have low impact and small surface areas. Examples in the exemplar list include CCTV cameras and in-situ sensors used in their normal scope. There is no detail in the exemplar list and on one interpretation a robot could be construed as an in-situ sensor, although it would seem unlikely the exemption was intended to cover multiple, complex robots operating *in situ* for extended periods of time.

## Small Surface Area Exemption

The application of the small surface area exemption is also unclear. The calculation provides a risk score using the surface area in contact with water with estimates of the volume of water in contact with the product over time. Unlike components such as pipes and tanks, the robots will not always be static against the flow of water making the application of the calculation uncertain and potentially complicated depending on periods they are static with or against flow and periods of motion. There may also be a swarm of robots and how this affects the calculation, if at all, is also unclear.

## Project and Regulatory Impacts

In any event, Sub-section b) is additional to the requirements that ‘wholesomeness’[[1]](#footnote-1) is maintained and prohibited substances remain excluded. Compliance with BS6920 in terms of non-metallic components is still recommended and further, water companies are still required to undertake their own risk assessment. This begs the question whether reliance on Sub-section b) would be acceptable to users of the product facing enforcement action (and adverse publicity) for any breach. Where there are areas of uncertainty in an industry generally acknowledged to be cautious (DEFRA 2011) and where public health is concerned, it may be the case that innovators and the purchasers of their product would not take the risk and Sub-section a) approval becomes a practical necessity if the product is to have any value in the market.

1. Section 67 WIA 1991, provides that water supplied to premises intended for human consumption must be ‘wholesome’ (Water Industry Act, 1991). What is considered wholesome is set out in more detail in Regulation 4 of the *Regulations*, providing for minimum or maximum limits on various lists of properties, micro-organisms, parasites, substances, and nitrate and nitrite levels (Water Supply (Water Quality) Regulations, 2016). [↑](#footnote-ref-1)