GUIDANCE ON THE IMPLEMENTATION OF THE WATER SUPPLY (WATER QUALITY) REGULATIONS 2016 IN ENGLAND AND THE WATER SUPPLY (WATER QUALITY) REGULATIONS 2010 (as amended) IN WALES

The Regulations

Part 3 – Wholesomeness

Regulation 4: Wholesomeness

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4. Regulation 4 – Wholesomeness

4.1 Under section 68 of the Water Industry Act 1991 water suppliers have a statutory duty to supply wholesome water.

4.2 Water supplies provided for cooking, drinking, food preparation, washing and to premises where it is used for food production must meet the wholesomeness requirements of these Regulations regardless of whether the water is supplied from the public piped supply system, tanker, bottle or other container.

4.3 Under regulation 4, water is deemed to be wholesome if it contains concentrations or values in respect of various properties, elements, organisms and substances that do not contravene the prescribed maximum, and in some cases, prescribed minimum, concentrations or value (PCV), as set out in Schedule 1, parts I and II, of the Regulations. The PCVs are listed in Tables A and B in Schedule 1. Part I of this Schedule refers to parameters that are set out in the Directive, and Part II refers to national requirements, which currently apply across England and Wales.

4.4 Regulation 4(2) requires that water supplied for regulation 4(1) purposes must not contain any micro-organism, parasite or substances at a level which could be a potential danger to human health, including where no standard has been set. From time to time the Inspectorate publishes on its website research reports and guidance on new and emerging drinking water safety issues, which companies should familiarise themselves with. Companies should also take into consideration expert opinion on drinking water safety such as that published in the *World Health Organisation (WHO) Guidelines for Drinking-water quality* and independent medical advice from Public Health England (PHE) or Public Health Wales (PHW).

4.5 Regulation 4(2)(d) specifies the nitrate/nitrite formula that must be satisfied where nitrate and nitrite are present together at concentrations that, individually, may comply with their respective PCVs.

4.6 Regulation 4(3) specifies the point at which wholesomeness must be established. Compliance with regulation 4 applies at consumers' taps, and, in the case of water supplied from tankers, bottles and other containers, the point at which it emerges from the container:

i. **Consumer's tap:** This is any tap in any part of a premises where the water is used, or has a reasonable expectation of use, for human consumption, including drinking, washing, cooking and food preparation. In a domestic property this tap is normally the kitchen cold water tap. In non-domestic properties the sampler should identify a suitable tap that is normally used for drinking and food preparation (or supply to the public in the case of public buildings – see regulation 21) and sample from that tap. Where more than one suitable tap is available in a building, the sampler should record accurately which tap was sampled, to aid compliance with regulations 18 and 19.

ii. **Tankers:** In the context of regulation 4, tankers are bowsers and tanks used to supply consumers directly (not vehicle or mobile tankers used for filling service reservoirs and direct injection into distribution mains). The point of compliance is defined as the point at which water first emerges from the tank.

iii. **Bottles and containers:** The point of compliance for bottles and containers is defined as the point at which water first emerges from any bottle or container. This relates only to bottles or containers which have been stored by the water company at a temporary local public distribution point. It does not relate to stocks of bottles or containers which are under the control and management of the producer, the company or any specialist supplier.

4.7 Regulation 4(4) defines the criteria for wholesomeness on transfer from water treatment works.

4.8 Regulations 4(5) and 4(6) define the criteria for wholesomeness on transfer from service reservoirs. Regulation 4(6) allows up to 5% of samples taken in any calendar year that a reservoir is in use to contain coliform bacteria. Any occurrence of coliform bacteria in a sample taken from a service reservoir should be thoroughly investigated to establish the cause, so that steps can be taken to prevent a deterioration in quality and to mitigate the risk of unwholesome water being supplied to consumers.

4.9 Risk assessments carried out under the requirements of Regulation 27 [28] should cover all risks to wholesomeness [public health in Wales], from substances and organisms which have parametric standards, and from those which do not.

4.10 Refer also to the guidance on regulation 16 covering sampling procedures, and regulation 10 which requires monitoring for substances other than parameters that may result in water being unwholesome.

4.11 Regulation 4 does not make any reference to Indicator Parameters, listed in Schedule 2 of the Regulations and which have specified concentrations or values. If an indicator parameter fails its specified value, water companies are required to investigate the cause and take any remedial action necessary to ensure that the water supply is not, or does not become, unwholesome. See also under regulation 19.

4.12 **Chromium VI:** In 2015 the Inspectorate published a research report *Understanding the significance of chromium in drinking water*, and published further guidance to companies through Information Letter 02/2017 issued in May 2017. This research was sponsored in response to advice from Public Health England that toxicological data indicated that the concentration of hexavalent chromium (chromium VI, or CrVI) in drinking water should be reduced to as low as reasonably practicable. The guidance to water suppliers is summarised as follows:

- Water suppliers should continue to monitor and review their data for chromium:
    - Where concentrations of chromium are usually below 3 µg/l no further action need be taken.
    - At sites that regularly exceed 3 µg/l but never exceed 10 µg/l, companies should conduct monitoring of the sources for chromium or chromium VI and liaise with the Environment Agency to determine possible sources and investigate catchment solutions. Companies should review their risk assessments to check that chromium is included in their risk assessment methodology. In cases where chromium VI regularly exceeds 3 µg/L and catchment solutions are not possible suppliers may wish to consider installing blending or treatment.
    - At sites that regularly exceed 10 µg/l as chromium VI, in addition to the steps described above, suppliers should implement any short term steps to reduce the levels and notify the Inspectorate as soon as possible.

Revision notes:

Version	Revision	Date
1.0	First major version covering the 2016 Regulations	July 2016
1.1	Additional text in 4.6(ii) Tankers	April 2017
1.2	Added para 4.12 – Further guidance on CrVI (taken from IL 02/2017)	August 2017
1.3		
1.4		
1.5		