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 6 – Drinking Water Protected Areas

Regulation 17:
Drinking water abstraction points: monitoring sites

PART 6 – DRINKING WATER PROTECTED AREAS

Regulation 17 – Drinking water abstraction points: monitoring sites

17.1 Regulation 17 concerns the collection and analysis of samples of raw water used by water companies for regulation 4(1) purposes. The purpose of this sampling is primarily to inform regulatory risk assessments but will also contribute to the body of information collected by the Environment Agency (EA)/Natural Resources Wales (NRW) to support the objectives of the Water Framework Directive (Directive 2000/60/EC). Further guidance on the requirements of the Water Framework Directive is provided in the joint DWI/EA guidance document The Contribution of the Water Supply (Water Quality) Regulations to the implementation of the Water Framework Directive in England & Wales, published in 2012, available on the Inspectorate's and the EA's websites.

17.2 Regulation 17(1) requires water suppliers to identify every abstraction point from which water is drawn for regulation 4(1) public supply purposes. As part of each regulatory risk assessment companies should document every licensed raw water abstraction point irrespective of whether a source is used continuously, intermittently or as standby and emergency sources.

17.3 Regulation 17(2) requires that every abstraction point is monitored for parameters, organisms and other substances as necessary, and as required by regulations 26 and 27 – i.e. to identify risks in the raw water catchment that could cause the water supply to be unwholesome, to ensure that appropriate treatment is in place and to ensure that these risks, control measures and necessary improvements are documented in the reports submitted to the Inspectorate under the requirements of regulation 28.

17.4 Every sample point must have a unique reference number and its relationship to licensed abstraction points and the aquifer or the body of surface water must be recorded. When selecting sample points, companies must ensure that they are located upstream of any treatment intended to modify the quality of the water. Treatment in this context includes blending.

17.5 Companies are required to take samples from every abstraction point in use, including from licensed river abstractions that supply surface water reservoirs. Companies may use sampling points that are located away from the abstraction point, for convenience or safety considerations, provided that the quality of water at the sampling point is representative of water at the abstraction point. In some circumstances companies may need to take additional samples from raw water inlets to treatment works at an appropriate frequency in order to monitor and verify the quality of water as it is presented for treatment.

17.6 Regulations 17(3) and 17(4) give the Inspectorate the power to specify the number of raw water samples to be taken and the nature of the analysis to be carried out and to change these requirements. The Inspectorate will form a view as to the need for such notices following assessment of companies' regulation 28 [29] risk assessment reports and the raw water monitoring data submitted by companies. In addition, the Inspectorate may issue such a notice as a consequence of audit findings or an assessment of a notified event.

17.7 Regulation 17(5) specifies minimum sampling frequencies for surface water that are derived from the Water Framework Directive. These minimum frequencies are purely to enable the UK to demonstrate compliance with the Water Framework Directive, and they do not bear any relation to sampling frequencies that would be appropriate to monitor parameters and other organisms, elements and substances that indicate a risk to human health. Therefore it is expected that companies will adopt a risk-based approach to raw water monitoring and will, as a principle of good practice, exceed these frequencies when considering the sampling frequencies necessary to demonstrate compliance with regulation 26 [27] and to support regulation 27 [28] risk assessments.

17.8 Regulation 17(5) does not require companies to take samples of untreated water for any substance, organism or element that is not a public health concern, or indicative of a risk to wholesomeness. This does to some extent depend on the raw water itself and any mitigation provided by raw water storage reservoirs and treatment processes in place. Therefore substances which can cause treatment to be compromised, for example algae, should form part of companies' raw water monitoring strategies where they present a risk to treatment, even if the organisms themselves are not associated with a risk to human health.

17.9 The Regulations do not specify a minimum sampling frequency for raw waters from groundwater sources. Companies should take into consideration historical water quality trends, monitoring data available from other bodies (such as the EA/NRW), established practice for determination of sampling programmes to indicate changes or trends in raw water quality (such as technical guidance produced by the United Kingdom Technical Advisory Group (UKTAG) that supports the implementation of the Water Framework Directive - web address http://www.wfduk.org/) and any research published by the Inspectorate, for example on new and emerging contaminants likely to be present that may indicate a risk to human health.

17.10 Water suppliers are required to submit raw water monitoring data to the Inspectorate, as specified in the Water Industry (Suppliers' Information) Direction 2017. The Inspectorate shares companies' raw water data with the EA in line with the principles of better regulation for the purposes of contributing to the UK monitoring under Article 7 of the Water Framework Directive. Companies should ensure that they have in place local arrangements for the sharing of other data or information required for the assessment of risks as part of their regulatory risk assessments.

17.11 The Inspectorate recognises that companies may sometimes not be able to meet target sampling frequencies set by risk assessment. Abstraction points may be critical control points in supply system risk assessments, and monitoring frequencies for parameters identified as hazards should be based on risk and criticality. Any failure to meet a target sampling frequency should prompt a review of the risk assessment for the treatment works, and monitoring requirements adjusted accordingly.

Revision notes:

Version	Revision	Date
1.0	First major version covering the 2016 Regulations	July 2016
1.1	Updated for 2017 Information Direction	April 2017
1.2	Added para 17.11 - guidance on risk-based monitoring	August 2017
1.3		
1.4		
1.5		