

# Information note on Regulation 11



## **Sampling and analysis**

When monitoring private supplies local authorities must collect and analyse samples from specified points and use appropriate analytical systems. This Regulation describes a suitable sample point that must be used when taking samples for testing.

For supplies to domestic premises, Regulation 11 describes the sample point as the tap normally used to supply water for human consumption. Where there is more than one potential sample point, the selected sample point must be representative of the water supplied to the premises and this is usually the kitchen tap. On larger supplies, the premises from which the sample is taken may be varied at each sample visit, and records kept of which premises have been selected. Any premises with a point of use treatment device should not be selected if this is unrepresentative of the supply as a whole.

When sampling a supply that is used in food production, the point at which it is used in the process of manufacture should be sampled.

Where tankers are being used; for example, as an alternative supply, or to facilitate the provision of a supply in an emergency, local authorities must collect a sample at the point it emerges from the tanker.

Nitrate and turbidity should be sampled as the water leaves the final part of the treatment process (if applicable). Where the local authority encounters a situation that is not adequately described above then it should locate a suitable sampling point where the water is representative of that being supplied to the premises.

Schedule 3 requires that each sample must be taken by a person who is competent and suitable equipment should be used. UKAS accreditation under ISO 17025 to Drinking Water Testing Specification now includes the sampling and transportation of those samples. The Inspectorate is working with UKAS to develop an accredited method for demonstrating competence for sampling and transportation of samples, and more information will be made available during 2016. When collected, the sample should be representative of the water being supplied to the property at the time of collection. It should not be contaminated in the course of being taken and kept at a temperature and in a condition that will not cause erroneous results.

Following sample collection, local authorities must ensure that the sample is analysed without delay using a system of analytical quality control that is subjected to independent audit by an independent person who is approved by the Secretary of State. In England and Wales this is UKAS, and their accreditation is covered by the DWTS scheme.

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## **Sampling and analysis by persons other than local authorities**

Local authorities may wish to sub-contract the collection of samples and analysis. This is permitted, provided the local authority is satisfied the person is competent, analysis is carried out in a timely fashion at an accredited laboratory and any breach of water quality standards is communicated immediately to the local authority. Results of all samples taken for regulatory purposes by another party must be included in the local authority's annual data return to the Inspectorate.

## **Analysing samples**

Local authorities should pay due regard to the specified analytical performance criteria and methods. This is best dealt with by way of employing a laboratory that is fully accredited to the ISO 17025 Drinking Water Testing Specification which ensures that suitable methods are employed.

Local authorities are encouraged to use electronic reporting tools offered by a number of laboratories for ease of completing the annual return.

The standard for odour and taste is that a sample must be 'acceptable to consumers and no abnormal change'. This implies a qualitative assessment for which a trueness and precision cannot apply. However, DWI requires water undertakers to carry out a quantitative assessment in which case the above trueness and precision values apply. Local authorities are advised to follow this practice. A quantitative assessment is where a small panel of assessors taste or smell the water and dilutions of the water and estimate the taste or odour as a dilution number. Local authorities should be aware of the health and safety risks of carrying out qualitative and quantitative odour and taste measurements (on site or in the laboratory), more so with the taste (rather than odour), because private water supplies could be contaminated with harmful microorganisms.

## **Supplies in bottles or containers**

If water is supplied in bottles and containers instead of, or to supplement, a private water supply, and it is not controlled under the Natural Mineral Water, Spring Water and Bottled Drinking Water (Wales) Regulations (2007), the water must be monitored for check and audit parameters in accordance with the Private Water Supplies (Wales) Regulations 2010. Monitoring should include all the parameters required for Regulation 9 and 10 supplies with the addition of *Pseudomonas aeruginosa* as a check monitoring parameter. Frequency of bottled water check and audit monitoring may be seen in Table 1.

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**Table 1: Minimum frequencies for water put into bottles or containers**

<b>Volume<sup>1</sup> of water produced in bottles or containers each day (m<sup>3</sup>)</b>	<b>Check monitoring number of samples per year</b>	<b>Audit monitoring number of samples per year</b>
≤10	1	1
>10≤ 60	12	1
>60	1 for each 5m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 5m <sup>3</sup> /day)	1 for each 100m <sup>3</sup> /day of the total volume (rounding up to the nearest multiple of 100m <sup>3</sup> /day)

<sup>1</sup> The volumes are calculated as averages taken over a calendar year.