

---

SCOTTISH STATUTORY INSTRUMENTS

---

**2014 No. 364**

**The Public Water Supplies (Scotland) Regulations 2014**

**PART 4**

**MONITORING OF PUBLIC WATER SUPPLIES**

**Collection and analysis of samples**

**15.**—(1) Scottish Water must ensure, so far as is reasonably practicable, that in taking, handling, transporting, storing and analysing any sample required to be taken for the purposes of this Part, or causing any such sample to be taken, handled, transported, stored and analysed, the appropriate requirements are satisfied.

(2) In paragraph (1) “the appropriate requirements” means such of the following requirements as are applicable—

- (a) the sample is representative of the quality of the water at the time of sampling;
- (b) the sample is not contaminated when being taken;
- (c) the sample is kept at such temperature and in such conditions as will secure that there is no material alteration of the concentration or value or specification for the measurement or observation for which the sample is intended;
- (d) the sample is analysed as soon as may be after it has been taken—
  - (i) by or under the supervision of a person who is competent to perform that task; and
  - (ii) with the use of such equipment as is suitable for the purpose; and
- (e) any laboratory at which samples are analysed has a system of analytical quality control that is subjected from time to time to checking by a person who is—
  - (i) not under the control of either the laboratory or Scottish Water; and
  - (ii) approved by the Scottish Ministers for that purpose.

(3) For the purposes of paragraph (2)(e), “laboratory at which samples are analysed” includes a person who undertakes the analysis of samples for this Part, whether at the time and place where the samples are taken or otherwise.

(4) Scottish Water must maintain such records as are sufficient to enable it to establish, in relation to each sample taken for the purposes of this Part, that such of the appropriate requirements as are applicable to that sample have been satisfied.

(5) Subject to paragraph (7), for the purpose of establishing (within acceptable limits of deviation and detection) whether a sample contains a parameter in Table A, Table B or Table C at a concentration or value which contravenes the corresponding prescribed concentration or value—

- (a) the method of analysis specified in column (3) of Table M1 must be used for determining compliance with the parameter specified in relation to that method in column (2) of that table;
- (b) the method of analysis used for determining compliance with a parameter specified in column (2) of Table M2 must be capable, at the time of use—

- (i) of measuring concentrations and values equal to the prescribed concentration or value with the trueness and precision specified in relation to that parameter in columns (3) and (4), respectively, of that table; and
  - (ii) of detecting the parameter at the limit of detection specified in relation to that parameter in column (5) of that table;
- (c) the methods of analysis used for—
- (i) odour (item 9) in Table C; and
  - (ii) taste (item 11) in Table C,
- must be capable, at the time of use, of measuring values in relation to the prescribed concentration or value with a precision of 1 dilution number at 25°C; and
- (d) the method of analysis used for determining compliance with hydrogen ion (item 8) in Table C must be capable, at the time of use, of measuring concentrations equal to the prescribed concentration or value with a trueness of 0.2 pH unit and a precision of 0.2 pH unit.
- (6) For the purposes of paragraph (5)—
- “limit of detection” is to be calculated as—
- (a) 3 times the relative within batch standard deviation of a natural sample containing a low concentration of the parameter; or
  - (b) 5 times the relative within batch standard deviation of a blank sample;
- “precision” (the random error) is to be calculated as twice the standard deviation (within a batch and between batches) of the spread of result about the mean; and
- “trueness” (the systematic error) is to be calculated as the difference between the mean value of the large number of repeated measurements and the true value.
- (7) Subject to paragraph (9), the Scottish Ministers may, on the application of any person, authorise, by notice given to Scottish Water, a method of analysis other than that mentioned in paragraph (5)(a) (“the prescribed method”).
- (8) An application for the purpose of paragraph (7) must be made in writing (or in electronic form acceptable to the Scottish Ministers) and be accompanied by—
- (a) a description of the method of analysis; and
  - (b) the results of the tests carried out to demonstrate the reliability of that method and its equivalence to the prescribed method.
- (9) The Scottish Ministers must not authorise the use of the method proposed in the application unless they are satisfied that the results obtained by the use of that method are at least as reliable as those produced by the use of the prescribed method.
- (10) An authorisation under paragraph (7) may be subject to such conditions as the Scottish Ministers think fit.
- (11) The Scottish Ministers may, by notice given to Scottish Water, revoke an authorisation under paragraph (7) but no such notice is to be given later than 3 months before the date on which the revocation is stated to take effect.