
STATUTORY INSTRUMENTS

2000 No. 3184

The Water Supply (Water Quality) Regulations 2000

PART V

MONITORING—ADDITIONAL PROVISIONS

Collection and analysis of samples

16.—(1) A water undertaker shall secure, so far as is reasonably practicable, that in taking, handling, transporting, storing and analysing any sample required to be taken for the purposes of Part IV or this Part of these Regulations, 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 for the measurement or observation of 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;
- (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 the undertaker; and
 - (ii) approved by the Secretary of State for that purpose.

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

(4) A water undertaker shall maintain such records as are sufficient to enable it to establish, in relation to each sample taken for the purposes of Part IV or 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 the sample contains concentrations or values which contravene the prescribed concentrations or values, or exceed the specifications for indicator parameters—

- (a) the method of analysis specified in column (2) of Table A1 in Schedule 4 shall be used for the parameter specified in relation to that method in column (1);
- (b) the method of analysis used for a parameter specified in column (1) of Table A2 in that Schedule must be capable, at the time of use—

- (i) of measuring concentrations and values equal to the parametric value with the trueness and precision specified in relation to that parameter in columns (2) and (3) of that Table; and
 - (ii) of detecting the parameter at the limit of detection specified in relation to that parameter in column (4) of that Table;
 - (c) the method of analysis used for determining compliance with the hydrogen ion parameter must be capable, at the time of use, of measuring concentrations equal to the parametric value with a trueness of 0.2 pH unit and a precision of 0.2 pH unit; and
 - (d) the method of analysis used for the odour and taste parameters must be capable, at the time of use, of measuring values equal to the parametric value with a precision of 1 dilution number at 25°C.
- (6) For the purposes of paragraph (5)—
- “limit of detection” is to be calculated as—
- (a) three times the relative within batch standard deviation of a natural sample containing a low concentration of the parameter; or
 - (b) five times the relative within batch standard deviation of a blank sample;
- “precision” (the random error) is the standard deviation (within a batch and between batches) of the spread of results about the mean; and
- “trueness” (the systematic error) is the difference between the mean value of the large number of repeated measurements and the true value.
- (7) Subject to paragraph (9), the Secretary of State may, on the application of any person, authorise a method of analysis other than that specified in paragraph (5)(a) (“the prescribed method”).
- (8) An application for the purposes of paragraph (7) shall be made in writing and shall 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 Secretary of State shall not authorise the use of the method proposed in the application unless he is 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 Secretary of State thinks fit.
- (11) The Secretary of State may at any time, by notice in writing served on the water undertaker to which an authorisation under paragraph (7) has been given, revoke the authorisation, but no such notice shall be served later than three months before the date on which the revocation is stated to take effect.