



guardians of drinking water quality

DRINKING WATER INSPECTORATE

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DWI Information Letter 2/2005

To: Board Level Contacts of Water and Sewerage Companies in England and Wales

Dear Sir or Madam

Issues relating to the submission of sample data to the Drinking Water Inspectorate

Purpose

1. The purpose of this Information letter is to inform water companies of amendments to data requirements originally specified by Information Letter 6/2003 (Revised). The letter is in three parts. The first part looks at changes to the submission of compliance data in the light of experience gained during 2004. The second part provides further guidance for certain monitoring issues, especially the use of automatic and authorised supply points. The third part deals with specific requirements for information to be supplied by companies for the Chief Inspector's Annual Report 2004.

Part 1 - Changes to Annex B of Information Letter 6/2003

2. During 2004 a number of useful comments were made by both water company representatives and DWI Inspectors on the data requirements specified in Annex B of Information Letter 6/2003 (Revised). Following analysis of the first year's compliance submissions under the Water Supply (Water Quality) Regulations 2000 in England and 2001 in Wales (the new Regulations), the Inspectorate proposes to make several changes to the data requirements for 2005. The web version IL 6/2003 (www.dwi.gov.uk) will be updated to reflect these changes.
3. The amendments will apply to sample data collected from 1 January 2005, i.e. submissions reported to the Inspectorate from 21 March 2005.
4. The proposed changes are as follows, with the amendments shown in **red**:

Details Table

Fields for Source Type, Chloramination flag, Aluminium flocculant flag, Iron flocculant flag, surface water flag and hypochlorite flag to be mandatory for supply point site records as well as water treatment works. This will allow the Inspectorate's data staff to more easily check for frequency of audit or check monitoring.

| FIELD NAME | FIELD DESCRIPTION | STATUS (Mandatory/optional) | FIELD TYPE | FIELD SIZE | FIELD EXAMPLE |
|---------------------|---|--|------------|------------|---------------|
| SourceType | For treatment works specify whether the source is ground or surface water (at any time during the report year). GW = Ground Water SW = Surface Water MW = Ground and Surface Water | Mandatory (if Treatment Works or Supply Point) | Text | 2 | MW |
| Chloramination Flag | For sites where Chloramination is practised (at any time in the reporting year). - Use letters CF Note : Leave blank if not applicable. | Mandatory (if Treatment Works or Supply Point) | Text | 2 | CF |
| AlFlocFlag | For sites where Aluminium is used as a flocculant (at any time during the reporting year). - Use letters AF Note : Leave blank if not applicable. | Mandatory (if Treatment Works or Supply Point) | Text | 2 | AF |
| FeFlocFlag | For sites where Iron is used as a flocculant (at any time during the reporting year). - Use letters IF Note : Leave blank if not applicable. | Mandatory (if Treatment Works or Supply Point) | Text | 2 | IF |
| SWFlag | For sites where water originates from or is influenced by surface water. - Use letters SI Note : Leave blank if not applicable. | Mandatory (if Treatment Works or Supply Point) | Text | 2 | SI |
| HypoFlag | For sites where hypochlorite added within the distribution system (increased risk of bromate failure). - Use letters HC Note : Leave blank if not applicable | Mandatory (if water supply zone or Supply Point) | Text | 2 | HC |

Data Table

There is now a requirement for all samples taken from public buildings to be identified with the 'PB' flag in the 'Public Building' field of the Data Table. Previously the flag was only required for samples taken from a Public Building and failing a standard. See Information Letter 10/2004 for full details of this amendment.

In addition, results for a sample failing a standard, or considered by the Company 'likely to fail', should include in the comments field of the Data Table, the filename [in square brackets] of a Microsoft Word or Rich Text Format in the format specified in Appendix B of Information Letter 11/2004.

| FIELD NAME | FIELD DESCRIPTION | STATUS | FIELD | FIELD | FIELD |
|------------|-------------------|--------|-------|-------|-------|
|------------|-------------------|--------|-------|-------|-------|

| | | (Mandatory/optional) | TYPE | SIZE | EXAMPLE |
|----------------|--|---|-------------|---|--|
| PublicBuilding | Field to Indicate sample was taken from building supplying water to the public. Use letters PB Note : Leave blank if not applicable | Mandatory (if sample taken from public Building) | Text | 2 | PB |
| Comments | General comments field i.e. for PCV failure comment. For a breach of the standard this comment must be preceded by filename [in square brackets] of additional information as requested in Information Letter 11/2004. If commentary is submitted in comma separated variable (.csv) format Insert in double quotation marks. This will ensure correct loading of fields in DWI's database. | Mandatory if failure (or likely to fail) | Text | 8000 (if exceeds 256 characters save file as .csv) | [ANG-C001-03-02-04.doc] Sample taken for nitrite exceeds the maximum value of 0.1mg/l due to [reason]. A resample was successful |

Site Details Table

The Inspectorate has received representations from the industry that it is difficult to predict the volume of water supplied from some service reservoirs to zones(s). Whilst this information remains a mandatory requirement for treatment works to zones, the completion of the 'Volume' field in the Site Details table will now be optional for service reservoirs.

| FIELD NAME | FIELD DESCRIPTION | STATUS (Mandatory/optional) | FIELD TYPE | FIELD SIZE | FIELD EXAMPLE |
|-------------------|---|---|-------------------------|-----------------------|--------------------------|
| Volume | Estimate of the volume of water supplied daily in cubic metres to the zone from each site. (It is not necessary to estimate the volume supplied to the zone from a supply point, not being a treatment works, and in such cases this field should be left blank.) | Mandatory (optional for Service Reservoirs) | Number - floating point | 8 | 33500 |

Check Details file

The 'Check or Audit' field in this table should be left blank for parameters sampled at Service Reservoirs.

| FIELD NAME | FIELD DESCRIPTION | STATUS (Mandatory/optional) | FIELD TYPE | FIELD SIZE | FIELD EXAMPLE |
|-------------------|--|--|-----------------------|-----------------------|--------------------------|
| CheckorAudit | Field to indicate whether the record requires Check or Audit sampling (if frequency of sampling changes use situation at end of reporting period) - Use letter CM for Check | Mandatory for Works, Supply points and zones (leave blank for samples taken at Service Reservoirs) | Text | 2 | CM |

| | | | | |
|--|---|--|--|--|
| | sampling - Use letter AM for Audit sampling | | | |
|--|---|--|--|--|

Part 2 - Guidance on monitoring issues

- There are a number of monitoring issues that appear to warrant further guidance, based on the monthly compliance submissions received to date. Guidance is also given regarding Schedule 2 'Indicator Parameters' that have a point of monitoring at 'Supply Points'. A list of the permitted sites where parameters may be reported is included at Annex A.

Monitoring for specific parameters

Clostridium Perfringens

- Monitoring for *Clostridium Perfringens* (including spores) was not clearly defined in the new Regulations, especially regarding the issue of Audit (low) frequency. The Inspectorate reminds companies that guidance in the form of Information Letter 16/2003 specified these sample frequencies, as follows:

If the source originates from, or is influenced by surface waters, 'Check' monitoring should be applied. For samples taken in zones, frequencies are listed in Schedule 3, Table 2 of the Regulations (1 – 76 samples, by population). For samples taken at supply points, frequencies are listed in Schedule 3, Table 3, (2 – 2190 samples, by volume of water supplied m³/d).

Samples taken in zones and at supply points not influenced by surface water should be subject to 'Audit' monitoring, Schedule 3, Table 2 (1 – 8 samples, by population) and Schedule 3, Table 3 (1 – 48, by volume of water supplied m³/d).

- Companies should ensure that the appropriate 'AM' or 'CM' flags are recorded in their 'Check Details' tables in the 'CheckorAudit' field for all sites sampled for *Clostridium* (C004A). 'Details' table records for supply points will need to be completed for surface water and other information, see 'Changes to Annex B... above).

Hydrogen Ion

- Under the new Regulations hydrogen ion is both a National parameter (minimum value 6.5 - and maximum value 10), as well as an Indicator parameter (maximum value 9.5), sampled at the consumer's tap. To avoid duplication of data, companies may wish to submit all results against the parameter code of A006. Only if a sample result exceeds 9.5 pH should it be *duplicated and reported* as A006A (i.e. failing the Indicator standard). DWI's systems will then calculate these samples for summary purposes, as the total number of samples taken for hydrogen ion under National requirements and as an Indicator parameter should be the same.

Other Parameters monitored in 2004

9. A number of parameters listed in the Water Supply (Water Quality) Regulations 1989 have had their reporting units redefined under the new Regulations. For example copper and fluoride should now be reported in milligrams/litre, rather than µg/litre. Therefore any sample results reported using the old notation will be flagged by DWI's systems as failing the standard. Companies are responsible for ensuring that they report their results using the correct units.
10. Care is also needed when reporting parameters that have more than one point of compliance or point of monitoring e.g. Nitrite, Turbidity and Coliform bacteria. These have been allocated separate parameter codes accordingly. See Annex A.
11. The DWI website version of IL 6/2003 'Annex C - New Regulations Parameter List' will be regularly updated to include newly allocated parameter codes for pesticides. Companies are reminded to advise the Inspectorate when monitoring for new substances prior to sampling taking place (IL 6/2003).

Sampling at Supply Points

12. Regulation 8(1) allows companies to take samples for certain parameters from any appropriate supply point in place of samples from consumers taps. The definition of supply points and the conditions under which this monitoring can take place, as well as the parameters involved, are fully covered in DWI Information Letter 9/2003.
13. IL 9/2003 lists the parameters that may be subject to Automatic (Annex 1), and Authorised (Annex 3) supply point monitoring. Also included in the Information Letter is a list of parameters that are *unlikely* to be granted supply point authorisation, along with reasons for this decision (Annex 2). An application form is also included (Annex 4). **N.B the guidance for *Clostridium Perfringens* in IL 9/2003 has been superseded by IL16/2003** (see above).
14. The heading of Table 3 of Schedule 3 to the Regulations is unfortunately worded somewhat ambiguously. This has resulted in some companies reporting results for supply point samples under the wrong site reference. This has occurred where samples, such as pesticides have been taken at a treatment works, which is also a designated supply point. Such samples **must** be reported against the 'S' site reference as appears in the 'Details' table and **not** against the site reference for the treatment works (site reference 'T'). The **only** parameters that should be reported against the site reference for treatment works are residual disinfectant, colony counts, turbidity, coliform bacteria, *E. coli* and nitrite.

15.To aid reporting, an example is given below for guidance and shows extracts from a Details and Site Details Table for a treatment works, which is also used for supply point monitoring.

16.Extract from 'Details' Table*

| SiteRef | SiteName | StartD | EndD | Pop | Vol | NGR-E | NGR-W | Source |
|---------|--------------------------|----------|----------|-----|---------|--------|--------|--------|
| TBWL | Bestwool Treatment Works | 01/01/04 | 31/12/04 | | 4346.69 | 123456 | 123456 | GW |
| SBWL | Bestwool TW Supply Point | 01/01/04 | 31/12/04 | | 4346.69 | 123456 | 123456 | GW |

Extract from 'Site Details' Table*

| SiteRef | SiteRefZone | Volume |
|---------|-------------|---------|
| TBWL | Z001 | 2523.60 |
| SBWL | Z001 | 2523.60 |

* extracts only – see IL 6/2003 (Revised) for full file specification

17.Similar confusion has arisen over the Indicator Parameters in Schedule 2 to the Regulations that may be monitored at supply points.

18.These parameters **must** be reported to the DWI against supply point codes (S prefix) regardless of whether the designated supply point is a water treatment works. Therefore Indicator parameters such as chloride, *Clostridium perfringens*, conductivity, sulphate, total indicative dose (Gross Alpha and Beta), total organic carbon and tritium **must** only be reported as supply point samples. These parameters all qualify for 'Automatic' supply point authorisation in Annex 1 to Information Letter 9/2003.

19.A complete list of parameters and the sites where sampling is permitted is given in Annex A below.

Part 3 - Information requirements for inclusion in the Chief Inspector's Annual Report for 2004

20.The format for the Chief Inspector's Annual Report for 2004 will be different to previous reports. The transfer to monthly compliance submissions has negated the need for companies to provide the Inspectorate with their complete annual compliance submissions by end February of the following year.

21.Summary tables will therefore be prepared using the Inspectorate's data processing systems, from the monthly returns of each company. Examples of these summary tables and the revised format for the CIR have been discussed with WaterUK.

22.The Inspectorate will begin the compilation of the Chief Inspector's Annual Report as soon as companies have submitted their final data submission for the previous year, i.e. 21 February 2005. **Under no circumstances** will re-submitted or amended data be accepted after 28 February 2005.

23. To assist the Inspectorate with the preparation of Regional Sections of the CIR, companies are requested to provide the following 'Key facts' concerning their water supply:

- List of Counties or parts of Counties covered by Area of Supply
- Number of Local Authorities covered by Area of Supply
- Number of Health Authorities covered by Area of Supply
- Population supplied
- Amount of water supplied in MI/day
- Number of Treatment Works (WTW)
- Number of Service Reservoirs (SR)
- Number of Water Supply Zones (WSZ)
- Estimate in Km of mains pipe (Distribution)
- Water Composition:
 - % surface sources
 - % ground water sources
 - % mixed sources

24. A template for this information is included at Annex B below and should be submitted to the Inspectorate (as an electronic attachment in Microsoft Excel format) at the same time as the monthly compliance data for December, i.e. no later than 21 February 2005.

25. As part of its new style Annual Report the Inspectorate wishes to provide an assessment of consumer complaints as received by companies. Companies are reminded of the requirement in the Information Direction that they should provide to the Inspectorate **by 21st March 2005** a summary of consumer complaints made to them in 2004, in the format outlined in Information Letter 2/2004. Companies should indicate whether this submission does or does not include complaints associated with water quality incidents. Companies are also reminded of the Information Direction requirement to provide general information on the steps taken to inform consumers about drinking water quality by the same date. Further information was given in IL 2/2004.

26. Companies are reminded that any changes to their zone designations for 2005 will require a revised digital file to be submitted to the Inspectorate,

as specified in IL6/2003 (Revised), Annex A – Geographical Information specification.

Enquiries

27. Enquiries about this letter should be directed to Andrew Taylor, Water Quality Data Manager, Drinking Water Inspectorate, Zone 2/C1, Ashdown House, 123 Victoria Street, London SW1E 6DE (Telephone 020 8082 8019, Fax No. 020 8082 8024) or <mailto:andy.taylor@defra.gsi.gov.uk>.
28. Copies of this letter are being sent to Pamela Taylor, Chief Executive, Water UK; Richard Wood, Water Supply and Regulation Division, Department of the Environment Food and Rural Affairs; June Milligan, Environment Division, the National Assembly for Wales; Tim Hooton, Government Regulator for Drinking Water Quality, Scotland; Randal Scott, Drinking Water Inspectorate for Northern Ireland and Rowena Tye, Office of Water Services.
29. This letter is being sent electronically to Board Level contacts. Please acknowledge receipt by email to dwi.informationletters@defra.gsi.gov.uk. Hard copies are not being sent. This letter may be freely copied.

Yours sincerely



Prof Jeni Colbourne MBE
Chief Inspector
Drinking Water Inspectorate