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NI DWI Information Letter 01/17

To: Board Level Contact of Northern Ireland Water Ltd, Asset Delivery Directorate

DRINKING WATER INSPECTORATE'S INFORMATION REQUIREMENTS AND TECHNICAL AUDIT PROGRAMME FOR 2017

Dear Paul

Purpose

The purpose of this letter is to inform Northern Ireland Water Ltd (NI Water) of the arrangements for the provision of annual drinking water compliance information and the inspection programme for the Drinking Water Inspectorate's (DWI's) 2017/18 Technical Audit Programme. Ongoing discussion between DWI and NI Water's 'Drinking Water Regulation' and 'Environmental Regulation' staff will enable specific details to be developed during the year.

2017 Technical Audit Requirements

The 2017 Technical Audit requirements fall into the following categories:

- (1) provision of summary information relating to general drinking water quality compliance data for 2016 for water supply zones, water treatment works, water supply points, and service reservoirs;
- (2) regulatory contraventions, investigations, assessments, and remedial action;
- (3) an inspection programme which ascertains if satisfactory policies and procedures are in place, and checks that these are being implemented and meet with NI Water's regulatory requirements and UK water industry best practice;
- (4) information on events;



- (5) ongoing provision of updated regulation 28 risk assessment reports should be carried out in accordance with NI Water's current procedures and in line with the requirements of Information Letters 03/10 and the **new requirements** of Information letter 05/16 (Issued 1 December 2016);
- (6) summary information on consumer complaints relating to drinking water quality;
- (7) update on background and general information for the **2018** compliance monitoring programme for water supply zones, district metered areas, water treatment works, water supply points and service reservoirs, including location maps;
- (8) key facts for the Inspectorate's 2016 Annual Report; and
- (9) Drinking Water Directive 98/93/EC WISE data return for 2016.

Key dates for the provision of information are as follows:

- (1) 28 February 2017 (paragraph 5.3 refers);
- (2) 31 March 2017 (paragraphs 1.1 - 1.6; 2.1 – 2.3; 6.1, 7.2 and 8.1);
- (3) 30 June 2017 (paragraph 1.7 refers);
- (4) 29 September 2017 (paragraph 9.1 refers); and
- (5) 29 December 2017 (paragraph 1.6 and 7.1 refer).

'Regulations' refer to The Water Supply (Water Quality) Regulations (Northern Ireland) 2007 (SR No. 147) as amended by the Water Supply (Water Quality) (Amendment) Regulations (Northern Ireland) 2009 (SR No. 246); The Water Supply (Water Quality) (Amendment) Regulations (Northern Ireland) 2010 (SR No. 128) and The Water Supply (Water Quality) (Amendment) Regulations (Northern Ireland) 2015 (SR No. 363).



1. 2016 COMPLIANCE DATA

1.1 Water Quality

The Inspectorate requires the provision of summary information relating to drinking water quality in respect of analysis undertaken for compliance purposes for all samples taken during the period 1 January 2016 to 31 December 2016. NI Water shall provide DWI with compliance data for water supply zones, water treatment works, water supply points and service reservoirs **by 31 March 2017**.

For the reporting period, the compliance information should be provided in the format used by NI Water for its Asset Delivery Directorate Water Quality Reports. NI Water should also provide percentage compliances by parameter for each Water Supply Zone **[New Requirement]**.

NI Water **should** also provide summary information for all operational contraventions for water supply zones, water treatment works, water supply points and service reservoirs **by 31 March 2017**.

1.2 Domestic Distribution Systems

1.2.1 NI Water **should** provide details to the Inspectorate of any failures which it has investigated and subsequently deemed to be attributable to the domestic distribution system in premises where water is made available to the public. The information for 2016 **should** be provided **by 31 March 2017**.

1.2.2 Where the sample was taken from a public building, the information provided **should** include a copy of the Notice supplied to the consumer under Regulation 17(6) or 18(3).

1.3 Pesticides - Other

NI Water **should** provide the following information **by 31 March 2017**:

- for each individual pesticide in NI Water's 2016 pesticide monitoring programme, the number of samples taken.

1.4 Residual disinfectant

NI Water **should** provide the following information **by 31 March 2017**:

- maximum, minimum and mean values for total and free residual disinfectant results for samples taken at each water treatment



works, each service reservoir and in each water supply zone during 2016.

1.5 Raw Water Monitoring Summary Data

NI Water **should** provide the following information **by 31 March 2017**:

- for each abstraction point used in 2016, all 'raw water' monitoring data required under regulations 16A and 16B for each parameter tested; and evidence that NI Water provided this information to NIEA. DWI **should** therefore be part of the circulation list for the e-mail that is sent from NI Water to NIEA in providing this information [**Clarification of Requirement**].

1.6 Standard Sampling Frequency Compliance Requirements

- NI Water **should** provide a summary report for the period 1 January 2016 to 31 December 2016 identifying for each water supply zone, water supply point, service reservoir and water treatment works, by parameter, where the regulatory standard sampling frequency has not been met. This information is required **by 31 March 2017**.
- NI Water **should also** provide its compliance sampling schedule for 2018 by **29 December 2017**.

1.7 Provision and Publication of Information

NI Water **should** send to DWI, **by 30 June 2017**:

- a copy of any report prepared by it for the purposes of regulation 34(1) of the Regulations; and
- evidence that NI Water provided the information to district councils required under regulation 34 (3 and 4) and a copy of the information supplied.

2. REGULATORY CONTRAVENTIONS, INVESTIGATIONS, ASSESSMENTS, AND REMEDIAL ACTION

2.1 Contravention Reporting and Investigation Requirements

- 2.1.1 The Inspectorate will monitor and assess occurrences where the regulatory standards have been contravened and deal with specific issues on a parameter basis. Substantive timely investigation reports,



which are supported by pertinent information, are required where a regulatory standard has been contravened. It is incumbent upon NI Water to include sufficient documentary detail to support both the investigation and the appropriate corrective action to be taken.

2.1.2 NI Water **should** provide the number of samples taken at public buildings during 2016: the number failing to meet the regulatory requirements; and the sample ID (including zone code), sample date, sample address, and the specific location of the tap within the building or buildings where each of these samples was taken (e.g. cold water tap, left hand sink, first floor kitchen, main building etc). This information is required **by 31 March 2017**.

2.2 Regulatory Lead Compliance

2.2.1 NI Water **should** provide the following information **by 31 March 2017**:

- For each water treatment works lead zone: a map showing the location of the lead contraventions during the 2016 compliance sampling and lead zone sampling programme; and the grid references for each contravention; and
- the total number of operational lead samples (including customer requests) in 2016 and the number of contraventions.

2.2.2 NI Water **should** provide the following information **by 31 March 2017**:

- details of monitoring results to demonstrate optimization of orthophosphate dosing. This should, for each water treatment works lead zone include:
 - the number of samples taken;
 - the number of samples >10 µg/l lead;
 - the number of samples taken for pH and phosphate;
 - the minimum, mean and maximum results for pH and phosphate;
- details of the orthophosphate dose rates used during 2016 at each water treatment works (including any step changes, giving the dates when any changes were made and any periods when no dosing took place and an explanation for that) and any planned changes for 2017;



- following optimization of the orthophosphate dosing, where compliance with the 10 µg/l lead standard is <98% a review of the regulation 28 risk assessment **should** be undertaken and submitted to DWI; and
- details of any changes to the current procedures that demonstrate the regulatory requirement to notify consumers following a failure of the lead standard.

2.3 Regulatory Trihalomethane (THM) Compliance

NI Water **should** provide the mean, minimum and maximum THM values for each water supply zone in 2016. The grid reference of each THM contravention during the 2016 compliance sampling programme should also be provided [**New Requirement**]. This information is required **by 31 March 2017**.

3. INSPECTION PROGRAMME

- 3.1** As part of the process of technical audit to assess compliance with the Regulations and UK water industry best practice, the Inspectorate carries out an inspection programme.
- 3.2** NI Water will be given notification where an inspection of NI Water's sites is required. Details of inspection topics and information requirements will be arranged by discussion between the DWI and NI Water's day-to-day contacts.
- 3.3** Topics that may be covered during 2017/18 are listed below:
- vertical audit trails of randomly selected regulatory samples from the sampling programme to the Public Register;
 - inspection of its laboratory facilities for sample analysis;
 - inspection of one or more water treatment works;
 - inspection of one or more service reservoir(s);
 - inspection of sampling procedures;
 - inspection of sample points;
 - inspection of the Laboratory Information Management System;
 - vertical audit of one or more Regulation 28 Risk Assessment;
 - progress on agreed follow-up action relating to contraventions, previous inspections and event follow-ups;
 - assessment of NI Water's procedures for networks operations;



- assessment of NI Water’s lead reduction strategy; and
- consumer contacts.

4. PROVISION OF EVENTS INFORMATION

- 4.1 The Inspectorate will monitor and assess information required to be provided by NI Water in accordance with regulation 33 (6 and 7) of the Regulations.
- 4.2 NI Water **should** provide for each event notification, a “3 Day Report” within three working days of the event being identified.
- 4.3 NI Water **should** also provide for each event notification, details of the relevant district council(s) notified as part of the reporting requirements and the cause and remedial action codes for each event notification.

5. ONGOING REVIEW OF REGULATION 28 RISK ASSESSMENTS

- 5.1 NI Water, through the ongoing assessment of risks, and the impact of any event, **should** review and update its risk assessments in accordance with Information Letters 03/10 and 05/16.
- 5.2 Details of the review of the relevant section(s) of the risk assessments should be provided with the relevant “20 Day Report” for events, and as soon as practicable for any other identified risk.
- 5.3 In accordance with Information Letter 05/16 NI Water should, following an annual review, provide regulation 28 reports for all water supply areas detailing the risks for the incoming year (i.e. 2017), **by the 28 February 2017**. For each subsequent year this return will be required by the 31 January for that year. **[New Requirement]**



6. PROVISION OF CUSTOMER CONTACT INFORMATION

- 6.1 NI Water **should** provide the summary information on water quality contacts contained in the following table **by 31 March 2017**. NI Water **should** also provide the number of contacts in each water quality category for each water supply zone **by 31 March 2017**.

2016 Water Quality Contacts

Contact Category		Number of Contacts in 2016
Appearance	Colour	
	General	
	Hardness	
	Stained Washing	
	White - Air	
	White - Chalk	
Taste and Odour	Chlorinous	
	Earthy/Musty	
	Other	
	Petrol/Diesel	
	TCP	
Illness		
Particles		
Animalcules		
Boil Water Notices		
Other	Water Quality Concern - Campaigns	
	Water Quality Concern - Incident Related	
	Water Quality Concern - Lifestyle	
	Water Quality Concern - Pets/Animals	
	Water Quality Concern - Sample	
	Water Quality Concern - Lead	
	Water Quality (No Concern) Fluoride	
	Water Quality (No Concern) Other Information	
	Water Quality (No Concern) Water Hardness	
	Water Quality (No Concern) Water Quality Report	
	Miscellaneous	
	TOTAL	



7. BACKGROUND AND GENERAL INFORMATION REQUIREMENTS FOR 2018 COMPLIANCE MONITORING PROGRAMMES

7.1 Updates of the following documentation pertaining to the **2018** compliance data, including location maps, **should** be provided by NI Water to the Inspectorate **by 29 December 2017**:

7.1.1 For each abstraction point:

- its designation, type of source (such as surface, ground or mixed), the national grid reference of its location and an estimate of the average total daily volume of water abstracted for drinking water purposes (m³).

7.1.2 For each water treatment works:

- its designation and the national grid reference of its location;
- the associated water treatment processes (including type of disinfection);
- an estimate of the average total daily volume of water supplied from it (m³); and
- the designation of each service reservoir it supplies.

7.1.3 For each service reservoir:

- its designation, the national grid reference of its location, and its capacity (m³); and
- the designation of each water supply zone that it serves.

7.1.4 For each water supply zone:

- its designation;
- an estimate of the number of properties and population and
- the factor used to determine the populations supplied;
- the associated water treatment works;
- the associated district metered areas (DMAs);
- the population or property count of the DMAs; and
- the associated district council areas.

7.1.5 Site shape files relating to water treatment works, service reservoirs, water supply zones, and no water supply areas and an A0 size hard copy of the water supply zones map. A poly-line file of the mains network should also be provided.



- 7.2 NI Water **should** also provide information on:
- abstraction point details for 2017 as detailed in 7.1.1; and
 - the relationship between DMAs and water supply zones for 2017 in tabular format and in site shape files by **31 March 2017**.

8. PROVISION OF INFORMATION FOR THE INSPECTORATE'S ANNUAL REPORT FOR 2016

- 8.1 To assist the Inspectorate with the preparation of a 'Key Facts' table concerning water supply in **2016**, NI Water is requested to complete the table below by **31 March 2017**:

NI Water Key Facts Table, 2016

NI Water Assets	
Number of water treatment works	
Number of service reservoirs	
Number of water supply zones	
Length of mains pipe (km)	
Water Supplied	
Water supplied (MI/day)	
% from surface sources (impounding reservoirs)	
% from surface sources (rivers and loughs) MI/day	
% from ground sources (boreholes) MI/day	
Population Served	
Northern Ireland population estimate	
% population supplied by NI Water	
Properties connected to the public water supply	
Number of district councils	
Number of health authorities	

9. DRINKING WATER DIRECTIVE 98/93/EC WATER INFORMATION SYSTEM FOR EUROPE (WISE) DATA RETURN

- 9.1 To fulfil the requirements of Article 13(2) of the Drinking Water Directive (DWD), NI Water is **required** to provide information for the 2016 DWD WISE data return. The information should include:

- data for water supply zones where the supply of water exceeds 1000m³ per day or serves more than 5,000 persons;



- data for small water supply zones where the supply of water is less than 1000m³ per day or serves less than 5,000 persons; and
- cause and remedial action codes assigned to all non-compliances as specified in the DWD guidance.

NI Water is **required** to complete the template provided and return it to DWI by **29 September 2017**.

10. DATA VALIDATION

10.1 The Inspectorate will audit the consistency and accuracy of the compliance data returns. NI Water **must** ensure that the number of tests and contraventions reported in the weekly update spreadsheets match those reported in the monthly AMD Water Quality Compliance tables, and that quality checks have been carried out by NI Water before finalized data is submitted to the Inspectorate. Where the data provided in the monthly summary differs from data previously reported, **it will be returned to NI Water for correction.**

10.2 Under regulation 32(1) NI Water is required to prepare and maintain appropriate records. DWI will monitor NI Water's data returns against this requirement. If DWI determines there are ongoing and persistent issues with invalid data being provided to DWI, it may take further action in relation to this matter.

11. ENQUIRIES

Any enquiries relating to this letter should be addressed to Colin Clements (Tel: 028 9056 9242).

Please acknowledge receipt of this letter, to DWI@daera-ni.gov.uk.

Yours sincerely



Catriona Davis



Chief Inspector of Drinking Water for Northern Ireland

cc: Ms T Teague
Mr M Livingstone
Ms D Gallagher
Ms T Hedley
Mr G Smith

