

Yorkshire Water Services Trade Effluent Meter and Sampling Equipment Policy

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YorkshireWater

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1. Introduction

This policy outlines Yorkshire Water's (YW) approach to trade effluent flow meters and sampling equipment.

This process is compliant with the Wholesale-Retail Code Part 3: Operational Terms, Part G Trade Effluent and Part B Metering (Process B12, B13 & B14).

2. Aim

The aim of this policy is to:

- Ensure a consistent approach is followed within YW operational area.
- Provide clear guidance to retailers and non-household customers on the responsibilities for flow meters and sampling equipment.

3. Trade Effluent Flow Measurement

3.1 The flow measuring equipment must be fit for purpose i.e. operate accurately and continuously, at all times, and under all conditions created by the trade effluent e.g. steam, dissolved air (DAF), foam, oil, grease, solids etc.

3.2 For any form of open channel and closed pipe method of measuring flows, the equipment and its installation, must conform to the relevant BS / ISO standards and the YW Flow Monitoring Specification.

3.3 All other methods of measurement used, must be capable of operating within a 5% accuracy range over any 24-hour period during optimal conditions.

3.4 The flow recorder must have a non-resettable totalizer which totals effluent flow in cubic metres. The totalizer must be capable of recording a minimum of 12 months effluent volume.



3.6 The flow recorder must record the effluent volume discharged in each consecutive previous 24-hour measurement period together with the maximum rate of discharge that occurred during that same 24-hour period.

3.7 The flow recorder must be capable of readily / automatically providing (displaying) both the volume discharged and maximum rate of flow that occurred during the last operational previous 24-hour sampling / flow measurement period.

3.8 The recording of flow data must be set at a maximum of 15-minute intervals.

3.9 The flow recorder must be capable of triggering an effluent sampling machine on a flow proportional basis.

3.10 The flow recorder must be programmed so that the collection of flow proportional effluent samples and the measurement / recording of effluent flow are synchronised to the exact same 24-hour period.

3.11 The recorder must be programmed so that, when one 24-hour cycle of flow measurement and sampling event has been completed, the equipment will automatically initiate a further / separate 24-hour cycle of flow measurement / recording and sample collection.

3.12 The flow information recorded by the flow recorder must be capable of being downloaded to a computer and the data capable of being reproduced in both tabular and graphical formats.

3.13 In the event of a power failure, the instrument must have an alternative power supply to provide continued recording and retaining of data until the normal power supply is restored (i.e. battery & battery charger back up).

3.14 In the event of a signal failure, the data logger must continue to record and totalise at the value of the last signal provided.



4. Automatic Sampling Equipment

4.1 The Sampling Machine will consist of a multiple composite bottle system (with a minimum of 4 bottles). The volume of effluent held by each composite bottle must be a minimum of 10 litres capacity. Any additional bottles used to meet specific requirements must be of identical bottle capacity.

4.2 The equipment must be capable of collecting effluent samples on a flow proportional basis.

4.3 The Sampling Machine must commence a new, 24-hour sampling cycle automatically on the completion of the previous 24-hour sampling cycle. At the same time, the sampler must automatically change over to an empty bottle. The start of a 24-hour sampling period and the changeover to an empty bottle must be synchronised with the start of the flow recorder 24-hour measurement period.

4.4 The Sampling Machine will be of a design capable of sampling the trade effluent in question i.e. Designed to be fit for purpose with respect to nature of effluent.

4.5 The Sampling Machine bottle storage compartment must be appropriately refrigerated to preserve samples of readily degradable effluents. e.g. food effluents or similar.

4.6 Any associated / independent necessary refrigeration required must be located immediately adjacent to the Sampling Machine.

4.7 The sampling machine must be set to continually collect flow proportional samples and not have a pre-set cut off point that stops the operation of the machine at a pre-set daily volume of trade effluent discharged or trade effluent collected.



4.8 The Sampling Machine equipment, associated sample bottles and connecting pipework must be adequately protected from adverse or inclement weather conditions to prevent contents of sample bottles & transfer pipe/pipework from effects of weather. i.e. Freezing, Hot weather, rain contamination.

4.9 The Sampling Machine must be set up to provide an appropriate number of sampling events during the 24-hour period to ensure that composite samples are, at all times, fully representative.

4.10 The Sampling Machine should be set up to make provision to accommodate up to the consented maximum 24-hour volumetric limit.

4.11 The automatic sample machine installation must be capable of obtaining/collecting a representative sample of effluent from the official sample point as referenced point Y on the associated plan. This is the point of effluent entering the sewer system as consented by YW.



5. Trade Effluent Consent

The Consent document for the premises/company discharging the effluent contains details of the trade effluent flow meter requirements and the relevant wording is shown in Section 2 & Section 3 below:

(Section 2 Inspection and Measurement):

(2) There shall be provided, operated and maintained in good accurate working order and in a manner consistent with good operating practice, at all times, at your expense;

- (a) a meter in such a position and of such specification as shall be approved by YW such as will measure and provide a continuous record of the quantity and rate of discharge of any trade effluent being discharged from the premises into the said sewer and following the written request of YW to have the accuracy of the meter independently tested by an agreed body,
- (b) equipment in such position and of such specification as shall be approved by YW as will:
 - (i) provide for a continuous record of the pH of the trade effluent discharged from the premises into the said sewer.
 - (ii) provide for a flow proportional sample as will enable the nature and composition of constituents as set out in these conditions of any trade effluent being discharged from the premises into the said sewer to be ascertained and to provide as may be from time to time required by YW such samples from such equipment as will enable the nature and composition of constituents as set out in these conditions of any trade effluent being discharged from the premises into the said sewer to be ascertained



(3) You shall allow YW a right of access without notice for the purpose of inspecting, testing and reading such meter and equipment and any other equipment required under Condition 5(3) and for obtaining any sample of the effluent.

(Section 3 Information to be Given):

(1) You shall supply to YW all information reasonably requested for the control of the effluent and for the assessing of the charges in accordance with Conditions 3.1 and 8 of your consent.

(2) You shall keep a continuous record of the volume and rate of discharge and the pH of any effluent discharged from the premises into the said sewer and a record of the nature and quantity of any chemicals used to ensure compliance with the terms of this consent and copies of such records shall be submitted to YW within fourteen days of a written demand from YW. The originals of all such records shall be retained by you for a period of six years.

(3) You shall provide written documentation within 12 months from the date of this consent and every 12 months thereafter that the flow measurement, pH measurement and other equipment have been independently tested and where appropriate calibrated to ensure that they are in good working order and operating to all relevant specifications.

A copy of this should be emailed to
bsg.data.configuration@yorkshirewater.co.uk



6. Damaged/Stopped/Under-recording Trade Effluent Flow Meters

6.1 Where a retailer or non-household customer becomes aware of a damaged effluent flow meter the retailer should notify YW using form G/01, confirming the date the meter became damaged.

6.2 Where a retailer or non-household customer becomes aware that the effluent flow meter has been reset or exchanged, the retailer should notify YW using form G/01 within 2 business days of the work being completed. Alternatively, the non-household customer can email this information directly to market.operations@yorkshirewater.co.uk. This should confirm the final reading; the date the meter was reset or exchanged; the opening reading on the new meter; new meter serial number; meter location and any supporting photographic information.

6.3 It is the non-household customer's responsibility to arrange the exchange/repair of a damaged/stopped effluent flow meter and feedback to the wholesaler/retailer.

6.4 It is the wholesaler's responsibility to determine any market adjustments that are due as a result of a damaged/stopped effluent flow meter and notify the Central Market Operator (CMOS).

6.5 The retailer should not enter meter readings into CMOS when a damaged effluent flow meter has been identified as this will cause inaccurate settlement and prevent the final reading from being entered into CMOS.



7. Over-recording Trade Effluent Flow Meters

7.1 It is the sole responsibility of the non-household customer discharging the trade effluent to ensure that the effluent flow meter is reading accurately and any issues with the operation of the meter are fixed in a timely fashion.

7.2 It is the responsibility of the non-household customer to ensure that the effluent flow meter is calibrated on an annual basis.

7.3 YW does not accept any liability for the over-reading of the non-household customer's effluent flow meter and reserves the right to charge on the meter readings provided.

7.4 Where an effluent flow meter has been found to be over-recording usage, YW will not accept lack of compliance with Consent conditions as a valid reason for amending charges.

7.5 Where the effluent flow meter does not meet the required specification and is replaced, YW reserves the right to refuse to amend previous charges.

7.6 In exceptional circumstances YW may agree to review cases of flow meter over-reads. The retailer or non-household customer must provide evidence of the over-read and be able to demonstrate that the above criteria for managing the meter has been met.

7.7 The normal timescale on a decision will be within 10 working days.



8. Contact details

A non-household customer should contact their appointed retailer to submit a trade effluent enquiry G/01 to YW.

9. References

- Wholesale-Retail Code Part G: Trade Effluent;
- Wholesale-Retail Code Part B: Metering;
- YW Wholesale Trade Effluent Code of Practice;
- YW Wholesale Enforcement Policy for Trade Effluent;



10. Version Control

Document Control

Document Control Ref:	Yorkshire Water Services Trade Effluent Meter and Sampling Equipment Policy
Document Custodian:	The Trade Effluent Department
Review Period:	Annually or when necessary as a result of changes in legislation or centrally issued guidance

Document Approval

Trade Effluent Manager Document Owner (Author)	Technical Support Manager Document Approval Manager
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Document Revision History

Version	Date	Amendment Details
1	November 2020	Revised to incorporate new document template and addition of sampling equipment changes



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