

Electronic Monitoring and Data Collection

Trade Waste Fact Sheet

INTRODUCTION

SA Water requires some dischargers to electronically monitor their trade waste discharge on a continuous basis, as a condition in individual trade waste discharge permits. This generally applies in situations where there is significant risk (to our sewer network, treatment processes or treatment end-product quality) that requires mitigation by constantly monitoring parameters of concern and responding accordingly. We also use the collected data to assess ongoing compliance with discharge conditions. Typical parameters are:

- Conductivity
- pH
- Hydrogen Sulphide (H₂S)
- Flow rate & volume
- Chemical Oxygen Demand (COD)
- Turbidity
- Temperature
- Hydrocarbons

This fact sheet sets out in general what SA Water's trade Waste Branch expects of on-site electronic monitoring and data collection systems.

GENERAL ASPECTS

- The discharger and SA Water's Trade Waste Branch agree to a rapid response contingency plan for equipment failure (including spares inventory on site).
- Probes are located in areas representative of trade waste discharge to sewer. It is not advisable to locate in pump chambers or areas with stagnant flow due to potential homogeneity problems, sample degradation and fouling issues.
- Probe / meter types are suitable for the specific wastewater type and site conditions.
- SA Water does not recommend multi-parameter probes, as probe failure could result in all parameters being lost or not monitored.
- Monitoring stations are not located in sewer points that also contain domestic sewerage unless approved by the Trade Waste Branch.
- Cleaning / calibration occur at the equipment manufacturer's suggested minimum frequency, unless otherwise specified within individual trade waste discharge permits.

DATA COLLECTION FREQUENCY

- The maximum sampling interval for collecting individual raw (spot) data values is **2 minutes**.

COMMUNICATION / ACCESSIBILITY

SA Water may require one of the following two monitoring options in individual trade waste discharge permits.

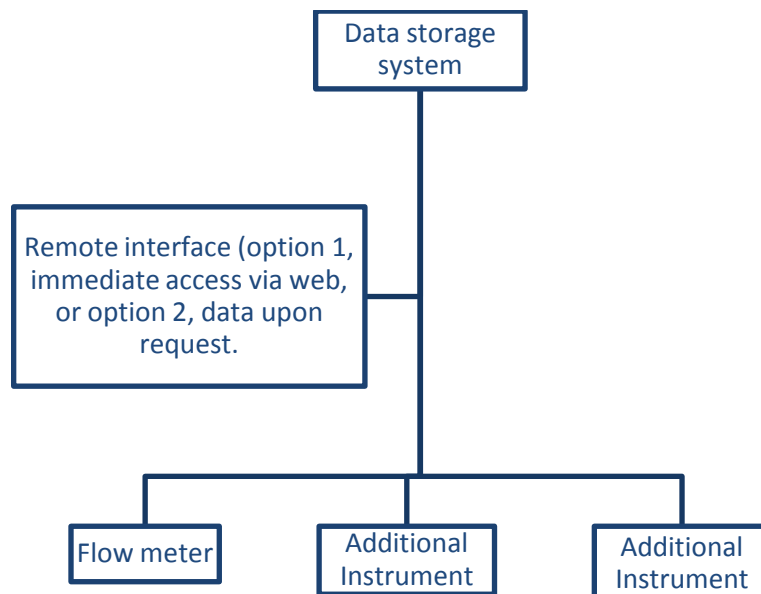
Option 1: Data must be accessible by SA Water at all times

- Minimum 24hrs of web-based graphical and raw 'real-time' data must be accessible by the corporation at all times via the internet.
- The online system shall be capable of exporting historical raw data for the previous 24hr period in a generic format, without the need for proprietary software (e.g. CSV file).
- The online system shall send alarms automatically (see alarms section below for details).
- Historical data must be stored either online or by other means for a period of up to 2 years, and is made available without delay upon SA Water's request. These data transactions may occur routinely or ad hoc for compliance / incident investigations. Email transactions may occur for file sizes up to 5MB. Alternatively a Trade Waste officer may obtain data during a site audit with a USB mass storage device.

Option 2: Data must be accessible upon request

- This option does not require the monitoring system to display data in "real time" and online.
- Upon request from SA Water (usually during audits) raw logging data and plots for all monitored parameters must be supplied without delay in a generic format without the need for proprietary software (e.g. CSV file). Email transactions may occur for file sizes up to 5MB. Alternatively, a trade waste officer may obtain data during a site audit with a USB mass storage device.

TYPICAL EXAMPLE



ALARMS

Where electronic monitoring equipment is required, SA Water will prescribe alarm set points in individual trade waste permits. Appropriate audible/visual indicators are required for “Option 1” and “Option 2” systems. Indicators should be clearly seen/heard by general site personnel, so they can respond accordingly.

“Option 1” equipment must also be configured to automatically notify (via SMS) the 24hr Trade Waste on-call number **0439 888 164** when an alarm set point has been exceeded. For this purpose, ten **minutes of averaged data** (raw event filter consisting of a minimum of 5 individual raw data points) is used. The SMS must clearly state the trade waste permit holder, discharge location (if multiple locations within a site) and the parameter outside of alarm set points.

For example- “Discharger’s company name” final discharge point pH < 6

It is advisable to configure additional SMS alarms to be sent to appropriate site personnel only at set points somewhat inside those specified by SA Water, to allow for rectification of potential problems before they trigger an automated alarm to the Trade Waste on-call number.

In the event that you are unsure whether your preferred electronic monitoring system meets SA Water’s minimum requirements, please contact the Trade Waste Branch or your Trade Waste officer. SA Water may approve systems that may vary slightly from those requirements listed above, providing they meet the critical performance aspects.

RESPONSES TO ALARMS

The Discharger

On-site personnel should take appropriate action in accordance with the previously established Contingency Plan. [Trade Waste Fact Sheet – Information about Risk Management](#) has further information on contingency plans.

SA Water

Upon receiving an alarm, a Trade Waste officer will interrogate the available information and telephone the Company’s contact person immediately. SA Water may deem an immediate site visit necessary. SA Water may recover the cost of sample analysis or damage caused to its infrastructure arising from an unacceptable discharge incident.