Local Waters

Horowhenua DISTRICT COUNCIL

Fact Sheet:

Trade Waste Sampling and Flow Monitoring Procedure

This Fact Sheet sets out the Sampling and Flow Monitoring Procedures for Trade Waste premises.

It should be read in conjunction with the relevant Standard.

Please contact Council Officers if you have any questions.

Sampling Procedure

Sampling procedures shall be undertaken in accordance with NZS 5667-10:1998 Water Quality – Sampling – Guidance on sampling of waste waters, **or** ISO 5667-10:1992 Water Quality Sampling Part 10: Guidance in Sampling of Wastewater, **or** any standard that succeeds it, **or** another Council-approved methodology.

When sampling to evaluate compliance with controlled substance limits, either spot or grab samples are sufficient. Sampling for compliance with the mass discharge of pollutants or to evaluate load-based trade waste charges shall be based on composite sampling.

The frequency, timing and number of composite samples for evaluating trade waste charges will be determined by the Council and will be based on the significance of the trade waste load relative to the treatment plant design load.

Typically, no less than 5 (five) 24-hourly composite samples will be used to determine annual load-based trade waste charges.

The following sub-sections provide some information from NZS 5667-10:1998:

Sampling Equipment

The laboratory responsible for analysing the samples should be consulted about the type of container that should be used for sample collection, storage and transportation. The container needs to prevent losses due to adsorption, volatisation and contamination by foreign substances.

The simplest equipment used for taking samples consists of a clean bucket, ladle, or wide-mouthed container of known volume (greater than 100 mL) that may be mounted on a handle of a suitable length.

The sampling location shall be the first manhole or other access point upstream of the point of discharge, unless a location giving more representative samples can be found. The location of the access point shall be in accordance with the New Zealand Building Code.

Sampling Method

Grab or Spot Samples

A grab or spot sample is a discrete sample taken randomly (with regard to time and/or location) from the trade waste where the whole sample volume is taken at once. Grab or spot samples are useful for determining the wastewater composition at a certain time.

Composite Samples

A composite sample is two or more samples mixed together, from which the average result of a desired characteristic may be obtained. Composite samples are prepared by mixing a number of grab samples or by collection of a continuous fraction of a waste stream.

Frequency and number of Samples

Analysis shall be based on samples taken at regular intervals during the control period, as specified in the occupier's trade waste consent. The number of samples taken during each control period should be determined by the Council.

If identifying the nature and magnitude of peak load is important, sampling should be restricted to those periods when peak loads are known to occur. Allowances should be made for daily, weekly and seasonal wastewater quality variations.

The stability of the sample may often limit the duration of the sampling period. Where this is the case, reference should be made to the specific analytical techniques to be undertaken and the receiving laboratory should be consulted so that correct preservative measures can be used.

A sampling chain of custody form should, as a minimum, include:

- name of the trade premises
- trade waste consent number
- sampling point
- date of sampling
- time, start and stop, of sampling
- details of the sampling method.

Flow Monitoring Procedure

Flow Monitoring Method

Flow monitoring shall be undertaken in accordance with AS 3778-5.3:2007 **or** ISO/TR 9824:2007, **or** BS EN 14154-3:2005+A2:2011, **or** any standards that succeed these, **or** another Council-approved methodology.

The flow meter equipment and monitoring methodology should be selected based on the physical and hydraulic characteristics of the proposed discharge and monitoring site, the objectives of the measurement and operations and maintenance considerations. Consideration should also be given to the position and nature of the instrument housing, bearing in mind the need for safe and easy access, protection from all anticipated water levels, human or animal interference and the elements.

Flow Meter Calibration

The consent holder shall arrange for *in situ* calibration of the flow metering equipment and instrumentation in accordance with NZS 10012 Part 1, or other Council-approved method, upon installation and at least once each following year to ensure its continued performance.

The meter accuracy should be ±10% but with no greater a deviation from the previous meter calibration of ±5%. A copy of independent certification of each calibration result must be submitted to the Council.