Wastewater Operating Services
Industrial Waste Control, Analytical &
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User Guidance Information	Sampling Plan Requirements	
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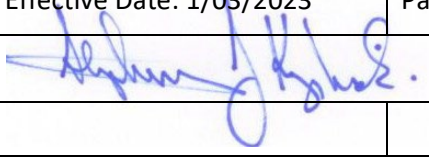
Authorization Signature		
Replaces:		

Section II-603 requires SIUs to provide a sampling plan describing how self-monitoring will be conducted to provide a representative wastewater sample. This guidance is a statement of GLWA's expectations.

The primary objective of a Control Authority and User sampling and analysis program is to demonstrate compliance with applicable federal categorical pretreatment standards, local pollutant discharge limitations and requirements, and/or general requirements at the point(s) of discharge, i.e. end-of process and/or end-of-pipe. Although the ultimate outcome is to produce a measurement or analytical result that is within the prescribed specifications or limitations, the measurement or result can only be defensible when the methods of sample collection, handling, documentation, analytical protocols, etc. are defined and rigorously observed. As such, development of a *sampling plan* establishes criteria to be followed to obtain reliable sample data.

Who Conducts the Sampling Event: Sampling may be performed by a user's personnel tasked with sample collection or contracted out to a qualified service provider and may be comprised of one or more individuals who form the sample and analysis team. When identifying these team members, the role and responsibilities should be prescribed in the sampling plan.

When are Sample Events Scheduled: In recognizing that the costs for sampling and analysis may be high, the development of a balanced sampling program will generally result in minimizing the cost(s) while providing sufficient information for assessing compliance.

A User may elect to collect samples at any frequency they determine is required to demonstrate compliance, however the minimum sampling requirements are specified in a user's wastewater discharge permit. Notwithstanding these minimums, the sampling plan should also recognize the need for supplemental sampling where additional sampling is needed to respond to a noncompliance event or to document a slug or spill events or may not satisfy other regulatory obligations, i.e., collecting 2 additional samples following a non-compliance event.

Where are Sampling Events Conducted: The selection of representative locations for sample collection is the responsibility of the user and confirmed by the Control Authority inspector. Site specification for waste streams regulated under federal national categorical pretreatment standards should be as close to the end-of-treatment (the end-of-process location) as feasible; while compliance for locally regulated parameters is end-of-pipe to represent all discharge streams. As appropriate, housekeeping and maintenance requirements for these locations should be specified in the plan.

What Procedures, Equipment, Instrumentation are Required: A plan should recognize:

- The individual pollutant parameters, or groups of pollutant parameters that require sampling during a particular event, the frequency of sampling, i.e., daily, monthly, annually, etc. and the number and size of sample needed to represent the User's discharge.
- Means of conducting representative sampling, i.e., instantaneous sampling, grab sampling, composite sampling, the number of sample aliquots and applicable collection frequency.
- Sampling equipment requirements and procedures for use, including pre-collection decontamination, post-collection decontamination, calibration and machine settings (if applicable)
- Sampling and measuring instrumentation requirements and procedures for use, cleaning and calibration protocols
- Documentation requirements, i.e., chain-of-custody, qa/qc for sample collection should be specified.
- pH Monitoring Plans required under Section II-302(b) may be developed as stand-alone plans or included with the sampling plan as long as it satisfies the guidance provided in 2023-02.

How Samples are Processed for Measurement or Analytical Determination: As appropriate, plans should specify: the size and types of containers (i.e., glass), cleaning procedures, sample preparation for analysis (sample-splitting) and chemical and thermal preservation requirements. Additionally, where multiple sample aliquots or measurements are collected for a pollutant the required frequency should be identified and documented. Example: If a pH measurement is taken each hour, the number of measurements necessary over a specific day should be specified.

Other considerations: Additionally, the following elements may be included:

- For instantaneous measurements, i.e., temperature or pH, the collection of multiple measurements should be recorded and averaged as appropriate to represent the average result for the day, as well as maximum and minimum readings. Unless voluminous, forms should include all measurements and not only a reported number. If voluminous, the records are to be available to GLWA on request.
- Where composite samples are "flow-based", information and procedures for correlating the wastewater flow to sample collection must be provided, i.e. s 100 ml of sample per 100 flow-pulses. Where "time" based composites are used, the frequency i.e., 125 ml per 15 minutes should be specified.
- Thermal controls – ice in sampler and transport coolers, or use of refrigerated sampler at set temperature.
- Other site-specific requirements

Signature: Plans should be signed and dated by the Authorized representative with copies provided and acknowledged by any Laboratory or Contractor (if applicable).

Sampling plans may be developed to include (i) routine sampling events, i.e., self-monitoring, (ii) permit application or BMR support data, and/or (iii) special sampling (i.e., surcharge determination sampling).

SAMPLE PLAN CHECKLIST
OPTIONAL

Review Checklist - User Sampling Plans

Sample Collection Method(s) Described

a) Instantaneous Samples (i.e., Temperature, pH, ORP, et	Yes	☐	No	☐	N/A	☐
Procedures:						
Type of Measuring Device	Yes	☐	No	☐	N/A	☐
Calibration (Date)	Yes	☐	No	☐	N/A	☐
Frequency of Measurement (per day)	Yes	☐	No	☐	N/A	☐
Reporting Forms or Records	Yes	☐	No	☐	N/A	☐

b) Grab Sampling (for specific pollutant parameters, i.e., FOG, CN, etc.)

Procedures:						
Sampling Equipment	Yes	☐	No	☐	N/A	☐
Bottle (size & type)	Yes	☐	No	☐	N/A	☐
Chemical & Thermal Preservation	Yes	☐	No	☐	N/A	☐
Frequency of Measurement (per day)	Yes	☐	No	☐	N/A	☐
Reporting Forms or Records	Yes	☐	No	☐	N/A	☐

c) Grab Sampling (for manual composites)

Procedures:						
Sampling Equipment	Yes	☐	No	☐	N/A	☐
Collection Bottle (size & type)	Yes	☐	No	☐	N/A	☐
Chemical & Thermal Preservation	Yes	☐	No	☐	N/A	☐
Frequency of Measurement (per day) Must be minimumof 4 aliquots)						
If time-based, volume collected per time unit	Yes	☐	No	☐	N/A	☐
If flow based, volume collected per flow unit	Yes	☐	No	☐	N/A	☐
Reporting Forms or Records	Yes	☐	No	☐	N/A	☐
Cleaning Procedures	Yes	☐	No	☐	N/A	☐

c) Composite Sampling (Machine-based)

Procedures:						
Sampling Equipment	Yes	☐	No	☐	N/A	☐
Sampe Bottle (size & type)	Yes	☐	No	☐	N/A	☐
Chemical & Thermal Preservation	Yes	☐	No	☐	N/A	☐
Final Sampe Bottle (size & type)	Yes	☐	No	☐	N/A	☐

SAMPLE PLAN CHECKLIST
OPTIONAL

Chemical & Thermal Preservation

Frequency of Measurement (per day)						
If time-based, volume collected per time unit	Yes	☐	No	☐	N/A	☐
If flow based, volume collected per flow unit	Yes	☐	No	☐	N/A	☐
Reporting Forms or Records	Yes	☐	No	☐	N/A	☐
Cleaning Procedures	Yes	☐	No	☐	N/A	☐
For Flow Measurement:						
Primary Device Description						
Weir	Yes	☐	No	☐	N/A	☐
Parshall Flume	Yes	☐	No	☐	N/A	☐
Magmeter	Yes	☐	No	☐	N/A	☐
Venturi Meter	Yes	☐	No	☐	N/A	☐
Other: (Specify)	Yes	☐	No	☐	N/A	☐
Secondary Instrument (totalizer, recorder, etc.)	Yes	☐	No	☐	N/A	☐
Calibration	Yes	☐	No	☐	N/A	☐
e) Sample Location(s) Identified						
Location(s) for pollutant parameter collection and measurement	Yes	☐	No	☐	N/A	☐
Housekeeping	Yes	☐	No	☐	N/A	☐
f) Sampling QA/QC addressed?	Yes	☐	No	☐	N/A	☐
g) Chain of Custody and Laboratory	Yes	☐	No	☐	N/A	☐