

## ATTACHMENT D

### SEWER USE REGULATION

#### ALLOCATION METHODOLOGY (Effective January 25, 2021)

**PURPOSE:** To allocate technically determined Pollutants of Concern (POC) capacity to Users while complying with the NPDES Permits issued to Renewable Water Resources (ReWa).

**OBJECTIVE:** To control the introduction of pollutants which can cause an adverse impact on the operation of a POTW, which may cause: a violation of NPDES Permits; personnel health problems; inhibition of process; pass through to the receiving stream; and/or interference with the disposal or use of biosolids.

#### DEFINITIONS AND TERMS:

**Current Methodology:** means the determination of permit limitations in accordance with this policy.

**Monthly Average Permit Limitation:** means the average concentration (mg/l), mass (lbs/day) or flow (gpd) for permitting determined from an allocation of the POC or flow capacity.

**Daily Maximum Permit Limitation:** means the maximum concentration (mg/l), mass (lbs/day) or flow (gpd) for permitting determined from an allocation of the POC or flow capacity.

**Average Daily Industrial Flow:** means the average daily flow from all Industrial Users determined by dividing the total flow from the Industrial Users over a period of days by the number of days in the period.

**Average Daily Treatment Plant Flow:** means the average daily flow into the influent of the treatment plant determined by dividing the total flow into the plant over a period of days by the number of days in the period.

**Conventional Pollutants:** includes BOD, TSS, and COD for the purpose of this methodology.

**Non-Industrial User:** means a residential or commercial User discharging domestic wastewater to the treatment plant.

**Non-Permitted Flow:** means the flow not allocated by ReWa discharge permits (including residential, commercial, and Industrial Users).

**Non-Permitted Loading:** means the mass (lbs/day) of a POC in the wastewater discharged by Users not permitted for the POC. This should only include background amounts of the POC.

**Pollutant of Concern (POC):** means the pollutants identified present from a review of POTW influent, effluent, and biosolids monitoring data which are in amounts that can cause an adverse impact on the POTW if not controlled. Additionally, those pollutants identified by EPA to necessitate inclusion in the headworks analyses.

**Practical Quantitation Limits (PQLs):** means the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure assuming that all of the method-specific sample weights, volumes, and processing steps have been followed.

## **PROCEDURES:**

### **Determination of Capacity:**

- Step 1 The Headworks Analyses will be performed on a site- specific basis for each wastewater treatment plant receiving industrial wastewater, or as required by the NPDES Permit. A daily average mass (lbs/day) allowable into the influent of the treatment plant will be calculated using the design flow of the treatment plant.
- Step 2 Before determining the capacity which can be allocated to Industrial Users for permitting purposes, the non-permitted loading of each POC has to be calculated. The non-permitted flow (MGD) will be calculated for each POC by subtracting the Average Daily Industrial Flow of industries with the POC in their permit from the average allocated treatment plant influent flow.
- Step 3 The available capacity of each POC that can be allocated to Industrial Users for permitting purposes will be determined by subtracting the determined non-permitted loading from the total allowable loading of a POC to the influent of the treatment plant minus any safety factor. The safety factor will be determined and approved by ReWa, after reviewing the performance of the wastewater treatment plant and the current percentage of hydraulic capacity being utilized.

### **Determination of Permit Limitations:**

- Option 1 Monthly Average Permit Limitation (mg/l) for conventional and non-conventional POC's will be determined by dividing the allowable lbs/day to be permitted to Industrial Users by the Monthly Average Permitted Flow (MGD) x 8.34 (lbs/gal), which is a contributory flow approach. Alternatively, ReWa may approve using the Average Daily Industrial Flow which is a uniform concentration approach. Unless approved by ReWa, the allowable concentration will not exceed the current Sewer Use Regulation limitations. This will appear in the allocation worksheet as the Monthly Average Permit Limitation by Current Methodology (mg/l). When the Monthly Average Permit Limitation (mg/l) is determined to be less than Practical Quantitation Limits (PQLs), then the Monthly Average Permit Limitation (mg/l) will become the PQL.

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Option 2 When capacity is available and at ReWa’s discretion, ReWa reserves the right to exercise a mass (lbs/day) only option for a local limitation or applicable categorical pretreatment standard. The following conditions shall apply:

1. The I.U. shall submit a request for mass (lbs/day) only limitations.
2. A Waste Minimization and/or Water Conservation Plan shall be submitted and ReWa approval of the plan obtained.
3. A Slug Control Plan and/or, as required by ReWa, Spill Prevention Control Plan must be submitted and ReWa approval of the plan obtained.

When the mass (lbs/day) only option is applied, then the Monthly Average Permit Limitation (lbs/day) to be permitted will be determined by multiplying the average permitted flow (MGD) x the Monthly Average Permit Limitation by Current Methodology (mg/l) x 8.34 (lbs/gal). However, when greater than eighty percent of the WRRF capacity has been allocated, a more stringent mass (lbs/day) limitation may be determined based on removal efficiency.

Option 3 On a case-by-case situation, and at ReWa’s discretion, it may be advantageous to ReWa and the Industrial User to allow for a mass (lbs/day) only limitation for BOD, COD and TSS which is higher than that determined as stated above. The following conditions shall apply:

1. Capacity must be available.
2. Items 1, 2 and 3 as outlined in Option 2 for a mass (lbs/day) only option shall be completed.
3. Documentation and/or a treatability study which demonstrates that the wastewater is readily biodegradable shall be performed by the Industrial User and approved by ReWa.

Option 4 When capacity is available and at Rewa’s discretion, an Industrial User subject to an enforcement action such as a Compliance Schedule in a permit or Administrative Order may have a mass (lbs/day) only limitation higher than the mass (lbs/day) limitation determined by applying the above options. This mass (lbs/day) limitation will be called an interim limitation which will be effective in accordance with the Compliance Schedule deadline.

Option 5 For Industrial Users with a Monthly Average Permit Limitation of 10,000 (gpd) or less, the Montly Average Permit Limitation (lbs/day) to be permitted will be determined by multiplying the Monthly Average Permit Limitation by Current Methodology (mg/l) x 8.34 (lbs/gal) x .01 MGD.

Applies to All Options:

- A. The Daily Maximum Permit Limitation (mg/l) for conventional and non-conventional POC's will be determined by multiplying the Monthly Average Permit Limitation by Current Methodology (mg/l) times one of the following factors.
  - 1. A factor of one and a half (1.5) or less will be applied when in the opinion of ReWa a more stringent limitation is needed to protect the treatment system. Capacity must be available.
  - 2. A maximum factor of two (2) will be applied when capacity is available. A request and demonstration of need must be submitted.
- B. The Monthly Average Permit Limitations (lbs/day) and Daily Maximum Permit Limitations (lbs/day) for conventional and non-conventional POC's will be determined by multiplying the Monthly Average Permit Flow (MGD) by the respective determined limitations (mg/l) by current methodology x 8.34 (lbs/gal).
- C. The Daily Maximum Permit Flow (gpd) will be limited to not exceed 1.3 times the Monthly Average Permit Limitation (gpd) for the month permitted flow for Industrial Users discharging greater than or equal to 25,000 (gpd). For Industrial Users discharging less than 25,000 (gpd), the Daily Maximum Permit Flow (gpd) will be limited to not exceed 1.5 times the Monthly Average Permit Limitation (gpd) for the month permitted flow. This will better assure a consistent flow from the Industrial User.
- D. On a case-by-case basis, and at ReWa's discretion, the Daily Maximum Permit Flow Limitation (gpd) may be waived. The following conditions shall apply:
  - 1. The I.U. shall submit a request for waiver of the Daily Maximum Flow Limitation (gpd).
  - 2. A Slug Control Plan and/or, as required by the Director, Spill Prevention Control Plan must be submitted and ReWa approval of the plan obtained.
  - 3. The Monthly Average Permit Flow Limitation (gpd) shall not exceed five (5) percent of the POTW design hydraulic capacity.
  - 4. A Waste Minimization and/or Water Conservation Plan shall be submitted and ReWa approval of the plan obtained.
- E. The COD limitations will be calculated by multiplying the determined BOD limitation by a factor of three (3) which has been an accepted ratio in the wastewater profession for sanitary wastewater.

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NOTE: The peak Monthly Average Flow (gpd) during a review period plus five percent will become the Monthly Average Permit Flow Limitation (gpd). The review period will be the most current calendar year or ReWa Fiscal Year. For new Industrial Users, and for those Industrial Users wanting higher permitted flows, the requested flow from the Industrial User Permit Application plus five percent will become the Monthly Average Permit Limitation (gpd).

The more stringent of the categorical limitation or the local limitation will be applied for Categorical Users.

Monitoring and analysis will be performed in accordance with 40 CFR methodology by a SCDHEC Certified Laboratory. In the event that there is no approved method in 40 CFR 136 for a particular parameter, testing shall be performed in accordance with Standard Methods, herein defined, or a method approved by ReWa.