

Adopted Local Limits for Caguas Regional Wastewater Treatment Plant

The Caguas Regional Wastewater Treatment Plant (RWWTP) is on State Road 796, Kilometer 4.3, Bairoa La 25 Ward at the Municipality of Caguas. The plant operates under National Pollutant Discharge Elimination System (NPDES) permit number PR0025976.

The treatment process consists of screening, grit removal, sedimentation, biological treatment with aeration, secondary clarification, gravity sand filtration, chlorine disinfection, dichlorination followed by aeration before discharging the treated effluent to the Bairoa River. The sludge-handling facilities thicken and dewater the sludge on a belt filter press and send it to Mayagüez Compost facility.

The Puerto Rico Aqueduct and Sewer Authority (PRASA) has completed a Technically Based Local Limits evaluation to meet NPDES requirements for the Caguas RWWTP. The limits that will be adopted by PRASA have been developed in accordance with U.S. Environmental Protection Agency Technical Support Document *Local Limits Development Guidance*¹ and NPDES Permit No. PR0025976 Part IV.B.5.a(1) and (2). Table 1 lists the local limits to be adopted by PRASA.

Table 1. Adopted Local Limits

Parameter	Previous Local Limit	Adopted Local Limit
Arsenic	0.01 mg/L	0.16 mg/L
Cadmium	0.05 mg/L	0.12 mg/L
Chromium	1.0 mg/L	5.0 mg/L
Chromium (+6)	Monitor Only	Monitor Only
Copper	1.0 mg/L	1.18 mg/L
Cyanide (Free)	0.05 mg/L	0.08 mg/L
Lead	0.10 mg/L	0.79 mg/L
Mercury	0.025 mg/L	0.003 mg/L
Molybdenum	No Limit	0.33 mg/L
Nickel	0.50 mg/L	0.99 mg/L
Selenium	0.20 mg/L	0.29 mg/L
Silver	0.05 mg/L	0.12 mg/L
Surfactants (MBAS)	Monitor Only	Monitor Only

U.S. Environmental Protection Agency Office of Wastewater Management. 2004. *Local Limits Development Guidance*. EPA Publication EPA 833-R-04-002A. July.

Table 1. Adopted Local Limits

Parameter	Previous Local Limit	Adopted Local Limit
Zinc	0.25 mg/L	1.91 mg/L
Flow	No Limit	SIU-specific
BOD ₅	250 mg/L	250 mg/L surcharge level
TSS	250 mg/L	250 mg/L surcharge level
Total Nitrogen (NH3, NO3, and TKN)	No Limit	40 mg/L
рН	6.5-9.0 SU	6.5-9.0 SU
Phenols ^b (phenolic substances)	0.25 mg/L	1.0 mg/L
Oil and Grease	50 mg/L total O&G	50 mg/L Total O&G
Temperature	40°C	40°C (104°F) at POTW; 60°C (140°F) at discharge point
Flammability	>140°F Specified as Flashpoint	No discharge with a closed-cup flashpoint less than 140°F and no two consecutive readings at >5% LEL; no reading of >10% LEL
Toxicity		Industry permit-specific technically based limits

Notes:

For parameters where no limit has been adopted, PRASA reserves the right to establish limits on a case-by-case basis when an industry discharges in amounts that could cause interference or pass-through.

°C = degrees Celsius

°F = degrees Fahrenheit

BOD₅ = 5-day biochemical oxygen demand

LEL = lower explosive limit

MBAS = methylene blue active substances

mg/L = milligram(s) per liter

 NH_3 = nitrite NO_3 = nitrate

O&G = oil and grease

POTW = publicly owned treatment works

SIU = significant industrial user

SU = standard units

TKN = total Kjeldahl nitrogen
TSS = total suspended solids