

NPDES PERMIT NO. PR0026191

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, 33 U.S.C. §1251 et. seq. (the "Act"),

Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
Barrio Obrero Station
San Juan, Puerto Rico 00916

hereinafter referred to as "the permittee" is authorized to discharge from a facility named Guilarte Water Treatment Plant located at:

Road 131 km 1.7 Interior
Adjuntas, Puerto Rico 00601

to receiving waters named:

Stormwater ditch tributary to Guilarte River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof. All references to Title 40 of the Code of Federal Regulations are to regulations that are in effect on the effective date of this permit, including all amendments thereto published in the Federal Register. Unless otherwise specified herein, all terms are defined as provided in the applicable regulations under Title 40 of the Code of Federal Regulations.

This permit shall become effective on December 1, 2013 Effective Date of Permit (EDP).

This permit and the authorization to discharge shall expire at midnight, November 30, 2018.

Signed this 16th day of Sept. 2013,



José C. Font
Director
Caribbean Environmental
Protection Division

TABLE A-1 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the EDP and lasting through the expiration date of the permit, the permittee is authorized to discharge from outfall serial number 001 (filters and settling tanks washwater). Such discharge shall be limited and monitored by the permittee as specified below:

Receiving Water Classification: SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type
BOD ₅ (mg/L) ^{1,2,3}		5.0	Monthly	Grab
Color (Pt-Co Units) ^{2,3}		15	Monthly	Grab
Copper (Cu) (µg/L) ^{2,3}		7	Monthly	Grab
Chromium VI (Cr ⁺⁶) (µg/L) ^{2,3}		11.4	Quarterly	Grab
Cyanide, Free (CN) (µg/L) ^{2,3}		5.2	Quarterly	Grab
Dissolved Oxygen (mg/L) ^{1,2,3}	Shall not contain less than 5.0		Daily	Grab
Flow m ³ /day (MGD) γ ^{1,3,4}		120.00 (0.0317)	Continuous Recording or Estimated	
Lead (Pb) (µg/L) ^{2,3}		2.2	Quarterly	Grab
Oil and Grease (mg/L) ^{2,3}	The water of Puerto Rico shall be substantially free from floating non petroleum derived oils and greases.		Monthly	Grab
pH (SU) ^{2,3}	Shall always lie between 6.0 and 9.0		Daily	Grab

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Residual Chlorine (mg/L) $\beta^{2,3}$		0.50	Daily	Grab
Sulfide (indissociated H ₂ S) ($\mu\text{g/L}$) $\delta^{2,3}$		2	Quarterly	Grab
Solids and Other Matter ^{2,3}	The waters of Puerto Rico shall not contain floating debris, scum or other floating materials attributable to the discharge in amounts sufficient to be unsightly or deleterious to the existing or designated uses of the water body.		----	----
Suspended, Colloidal or Settleable Solids (mL/L) ^{1,2,3}	Solids from waste waters sources shall not cause deposition in or be deleterious to the existing or designated uses of the water body.		Daily	Grab
Taste and Odor-producing Substances ^{2,3}	Shall not be present in amounts that will interfere with the use for potable water supply, or will render any undesirable taste or odor to edible aquatic life,		----	----
Temperature °F (°C) ^{2,3}	No heat may be added to the waters of Puerto Rico, which would cause the temperature of any site exceed 90°F (32.2°C)		Daily	Grab
Total Ammonia (NH ₃) (mg/L) ^{2,3}		1.000	Monthly	Grab
Total Dissolved Solids (mg/L) ^{2,3}		500	Quarterly	Grab

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Turbidity (NTU) ^{2,3}		50	Quarterly	Grab
Special Conditions	See attached sheets, which contain special conditions that constitute part of this certification			
1,2,3 and 4 see page 9 of special conditions				

To comply with the monitoring requirements specified above, samples shall be taken at the sampling point for discharge serial number 001.

All flow measurements shall achieve accuracy within the range of plus or minus 10%.

β See Special Conditions 7 and 8.

δ See Special Conditions 11.

γ See Special Conditions 12.

ξ The samples shall be analyzed using the method approved by EPA in letter of February 20, 2007.

A. SPECIAL CONDITIONS

These special conditions are an integral part of the permit:

1. The flow of discharge 001 shall not exceed the limitation of 120.00 m³/day (0.0317 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a recertification from the Environmental Quality Board (EQB).^{1,4}
2. The discharge 001 will consist of filters backwashes and sedimentation tanks drains, treated in the Sludge Treatment System (STS) constructed for these purposes.
3. Within thirty (30) days after the Effective Date of the NPDES Permit (EDP), the permittee shall submit to the EQB for its evaluation and approval, the engineering report, plans and specifications of the constructed STS.⁴
4. No changes in the design or capacity of the STS will be permitted without the previous authorization of EQB.⁴
5. Prior to the construction of any additional treatment system, or the modification of the existing one, the permittee shall obtain the approval from EQB of the engineering report, plans and specifications.⁴
6. The permittee shall install, maintain and operate all water pollution control equipment in such manner as to be in compliance with the applicable Rules and Regulations.^{1,3}
7. No toxic substances shall be discharged, in toxic concentrations, other than those allowed as specified in the NPDES permit. Those toxic substances included in the permit renewal application, but not regulated by the NPDES permit, shall not exceed the concentrations specified in the applicable regulatory limitations.^{2,3}
8. The waters of Puerto Rico shall not contain any substance attributable to discharge 001, at such concentration which, either alone or as result of synergistic effects with other substances, is toxic or produces undesirable physiological responses in human, fish or other fauna or flora.²
9. The discharge 001 shall not cause the presence of oil sheen in the receiving water body.²
10. All sample collection, preservation, and analysis shall be carried out in accordance with the Title 40 of the Code of Federal Regulations (40 CFR), Part 136. A licensed chemist authorized to practice the profession in Puerto Rico shall certify all chemical analyses. All bacteriological tests shall be certified by a microbiologist or licensed medical technologist authorized to practice the profession in Puerto Rico.^{1,3}

11. The permittee shall use the analytical method approved by the Environmental Protection Agency (EPA), with the lowest possible detection limit, in accordance with the 40 CFR, Part 136 for Sulfide (as S). Also, the permittee shall complete the calculations specified in Method 4500-S⁻² F, Calculation of Un-ionized Hydrogen Sulfide, of Standards Methods, 18th Edition, 1992, to determine the concentration of undissociated H₂S. If the sample results for Dissolved Sulfide are below the detection limit of the EPA approved method established in the 40 CFR, Part 136, then the concentration of undissociated H₂S shall be reported as "below detection limit".³
12. Within thirty (30) days after the EDP, the permittee shall submit for EQB evaluation and approval, a method to measure or estimate flow at discharge 001. If a flow-measuring device is installed, it must be periodically calibrated and properly maintained. Calibration and maintenance records must be kept in compliance with the applicable Rules and Regulations.³
13. The sampling point for discharge 001 shall be located immediately after the STS.
14. The sampling point for discharge 001 shall be labeled with an 18 inches per 12 inches (minimum dimensions) sign that reads as follow:

"Punto de Muestreo para la Descarga 001"

15. All waters or wastewaters treatment facilities, whether publicly or privately owned, must be operated by a person licensed by the Potable Water and Wastewaters Treatment Plants Operators Examining Board of the Commonwealth of Puerto Rico.³
16. This special condition shall not become in effect until EQB has determined the applicability to the respective facility and has notified the permittee and EPA, in writing, of the necessity to comply with this special condition.

Not later than one hundred eighty (180) days after the Effective Date of this NPDES Permit Condition (EDPC), the permittee shall conduct semiannually acute toxicity tests for a period of one (1) year, after which the tests shall be performed annually, of its wastewater discharge through outfall serial number 001, in accordance with the following:³

- a. The test species should be the *Fathead Minnow* (*Pimephales promelas*) and *Cladocera* (*Daphnia magna*). The tests should be static renewal type.
- b. The toxicity tests shall be conducted in accordance with the EPA publication, EPA-821-R-02-012 Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Edition), October 2002, or the most recent edition of this publication, if such edition is available.
- c. The tests shall provide a measure of the acute toxicity as determined by the wastewater concentration, which cause 50 percent mortality of the test organisms

over a 48-hours period. The test results shall be expressed in terms of Lethal Concentration (LC) and reported as 48 hours, LC_{50} .

- d. A procedure report shall be submitted within ninety (90) days after the EDPC. The following information shall be included in the procedure report:
1. An identification of the organizations responsible for conducting the tests and the species to be tested.
 2. A detailed description of the methodology to be utilized in the conduct of the tests, including equipment, sample collection, dilution water and source of test organisms.
 3. A schematic diagram, which depicts the effluent sampling location in relation to the wastewater treatment facility and the discharge monitoring point.
 4. If stream flow monitoring is required, the method used to obtain the stream flow data in estimating the low flow of seven consecutive days with a recurrence interval of two years ($7Q_2$).
- e. The results of the tests conducted shall be submitted to EPA Region 2 and EQB within sixty (60) days of completion of each test. Based on the review of the test results, the Regional Administrator of EPA or the EQB can require additional toxicity tests, including chronic tests and toxicity/treatability studies, and may impose toxicity limitations.
17. The solid wastes (sludge, screenings and grit) generated due to the operation of the STS shall be:
- a. Disposed in compliance with the applicable requirements established in the 40 CFR, Part 257. A semiannual report shall be submitted to EQB and EPA
 - b. notifying the method or methods used to dispose the solid wastes generated in the facility. Also, copy of the approval or permit applicable to the disposal method used shall be submitted, if any.
 - c. Transported adequately in such way that access is not gained to any water body or soil. In the event of a spill of solid wastes on land or into a water body, the permittee shall notify the Point Sources Permits Division of EQB's Water Quality Area in the following manners:
 - 1) By telephone communication within a term no longer than twenty-four (24) hours after the spill (787-767-8073).
 - 2) By letter, within a term no longer than five (5) days after the spill.

These notifications shall include the following information:

- a) spill material,
- b) spill volume,
- c) measures taken to prevent the spill material to gain access to any water body.

This special condition does not relieve the permittee from its responsibility to obtain the corresponding permits from the EQB's Land Pollution Control Area and other state and federal agencies, if any.⁴

18. A log book must be kept for the material removed from STS detailing the following items:

- a. removed material, date and source of it;
- b. approximate volume and weight;
- c. method by which it is removed and transported;
- d. final disposal and location;
- e. person that performs the service.

A copy of the Non-Hazardous Solid Wastes Collection and Transportation Services Permit issued by the authorized official from EQB must be attached to the log book.³

19. The permittee must request and obtain from the EQB the corresponding permit for the operation of the septic tanks used to dispose the sanitary wastewater coming from the facility, according to the Underground Injection Control Regulation and the Regulation for the Certification of Plans and Documents under Consideration of the Environmental Quality Board.⁴

1, 2, 3 and 4 see next page

A. REFERENCES OF SPECIAL CONDITIONS

1. According to Rule 1301 of the Puerto Rico Water Quality Standards Regulation, as amended.
2. According to Rule 1303 of the Puerto Rico Water Quality Standards Regulation, as amended.
3. According to Rule 1306 of the Puerto Rico Water Quality Standards Regulation, as amended.
4. According to the Environmental Public Policy Act of September 22, 2004, Act No. 416, as amended.