

**NPDES PERMIT NO. PR0026883**

**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 **Bucarabones Water Treatment Plant** located at:

State Road No. 105, Km 37.7  
Maricao, Puerto Rico 00606

to receiving waters named:

Unnamed Creek tributary to the Guaba 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 **April 1, 2013**, which is the Effective Date of the Permit (EDP).

This permit and the authorization to discharge shall expire at midnight of **March 31, 2018**.

Signed this 20<sup>th</sup> day of December, 2012.

  
for José C. Font  
Acting 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 Name and Classification: Unnamed creek tributary to Río Guabá, SD

<u><b>Effluent Characteristics</b></u>	<u><b>Gross Discharge Limitations</b></u>		<u><b>Monitoring Requirements</b></u>	
	<b>Monthly Average</b>	<b>Daily Maximum</b>	<b>Measurements Frequency</b>	<b>Sample Type</b>
BOD <sub>5</sub> (mg/L) <sup>1,2,3</sup>		5.0	Monthly	Grab
Color (Pt-Co Units) <sup>2,3</sup>		15	Monthly	Grab
Copper (Cu) (µg/L) <sup>2,3</sup>		8	Monthly	Grab
Cyanide, Free (CN) (µg/L) <sup>ξ 2,3</sup>		5.2	Quarterly	Grab
Dissolved Oxygen (mg/L) <sup>1,2,3</sup>	Shall not contain less than 5.0.		Daily	Grab
Flow m <sup>3</sup> /day (MGD) <sup>1,3,4</sup>		52.03 (0.0137)	Continuous Recording	
Mercury (Hg) (µg/L) <sup>φ 2,3</sup>		0.050	Quarterly	Grab
Lead (Pb) (µg/L) <sup>2,3</sup>		2.7	Monthly	Grab
pH (SU) <sup>2,3</sup>	Shall always lie between 6.0 and 9.0.		Daily	Grab
Residual Chlorine (mg/L) <sup>γ 2,3</sup>		0.50	Daily	Grab

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurements Frequency</u>	<u>Sample Type</u>
Solids and Other Matter <sup>2,3</sup>		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.	----	----
Sulfates (SO <sub>4</sub> ) (mg/L) <sup>2,3</sup>		250	Quarterly	Grab
Suspended, Colloidal or Settleable Solids (mL/L) <sup>1,2,3</sup>		Solids from wastewaters source 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 <sup>2,3</sup>		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) <sup>2,3</sup>		Except by natural causes, no heat may be added to the waters of Puerto Rico, which would cause the temperature of any site to exceed 90°F (32.2°C).	Daily	Grab
Total Ammonia (NH <sub>3</sub> ) (mg/L) <sup>2,3</sup>		1.000	Monthly	Grab
Total Dissolved Solids (mg/L) <sup>2,3</sup>		500	Monthly	Grab
Turbidity (NTU) <sup>2,3</sup>		50	Monthly	Grab
Zinc (Zn) (µg/L) <sup>2,3</sup>		106.48	Quarterly	Grab
Special Conditions		See attached sheet, which contains special conditions part of this certification.		

Notes:

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

All flow measurements shall achieve accuracy within the range  $\pm 10\%$ .

$\gamma$  See Special Conditions 6 and 7.

$\phi$  See Special Condition 10.

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

1, 2, 3 and 4 see page 9 of the Special Conditions.

## 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 52.03 m<sup>3</sup>/day (0.0137 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a recertification from the Environmental Quality Board (EQB).<sup>1,4</sup>
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. No changes in the design or capacity of the STS will be permitted without the previous authorization of EQB.<sup>4</sup>
4. 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.<sup>4</sup>
5. 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.<sup>1,3</sup>
6. 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 application, but not regulated by the NPDES permit, shall not exceed the concentrations specified in the applicable regulatory limitations.<sup>2,3</sup>
7. 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.<sup>2</sup>
8. The discharge 001 shall not cause the presence of oil sheen in the receiving water body.<sup>2</sup>
9. 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.<sup>1,3</sup>
10. The samples taken for the analysis of mercury shall be analyzed using the analytical method approved by the Environmental Protection Agency (EPA) with the lowest possible detection level, in accordance with Rule 1306.8 of the Puerto Rico Quality Standards Regulation (PRWQSR), as amended.<sup>3</sup>

11. The flow-measuring device for the discharge 001, shall be periodically calibrated and properly maintained. Calibration and maintenance records must be kept in compliance with the applicable Rules and Regulations.<sup>3,4</sup>
12. The sampling point for discharge 001 shall be located immediately after the primary flow-measuring device of the effluent of the treatment system.
13. 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”

14. All water 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.<sup>3</sup>
15. 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 wastewaters discharge through outfall serial number 001, in accordance with the following:<sup>3</sup>

- 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 wastewaters concentration, which cause 50 percent mortality of the test organisms over a 48-hour period. The test results shall be expressed in terms of Lethal Concentration (LC) and reported as 48-hour, LC<sub>50</sub>.
- d. A procedure report shall be submitted within ninety (90) days after 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 wastewaters treatment facility and discharge monitoring point.
  4. If stream flow monitoring is required, the method used to obtain the stream flow data in estimating the seven-day two-year low flow (7Q<sub>2</sub>).
- 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.
16. 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 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.
  - b. 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) hour 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 Solid Wastes Program and other state and federal agencies, if any. <sup>4</sup>

17. A log book must be kept for the material removed from the 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.<sup>3</sup>

18. Within thirty (30) days after the Effective Date of the NPDES Permit (EDP), the petitioner shall submit to the EQB a copy of the Emergency Plan, which shall be signed and certified by a licensed engineer authorized to practice the profession in Puerto Rico, in accordance with Rule 1306.5 of the PRWQSR, as amended, to prevent and control spills.<sup>3</sup>
19. If septic tanks are used to dispose the sanitary wastewaters coming from the facility, the permittee must request and obtain from the EQB the corresponding permit for the operation of the septic tanks according to the Underground Injection Control Regulation and the Regulation for the Certification of Plans and Documents under Consideration of the Environmental Quality Board.<sup>4</sup>

1, 2, 3 and 4 see next page



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.