

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT NUMBER
PR0025968

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 Jaguas y Pesas **Water Treatment Plant** located at:

State Road No. 615, Km. 0.2
Ciales, Puerto Rico 00601

to receiving waters named:

Toro Negro 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, 2012, which is the Effective Date of Permit (EDP).

This permit and the authorization to discharge shall expire at midnight, November 30, 2017.

Signed this September 27th day of 2012,



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 Classification: SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type
2,4,6-Trichlorophenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
2,4-Dichlorophenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
2,4-Dimethylphenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
2,4-Dinitrophenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
2-Chlorophenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
2-Methyl-4,6-Dinitrophenol ($\mu\text{g/L}$) ^{2,3}		----	ϕ	Grab
Arsenic (As) ($\mu\text{g/L}$) ^{2,3}		10	Quarterly	Grab
BOD ₅ (mg/L) α ^{1,2,3,4,5}		15.0	Monthly	Grab
Cadmium (Cd) ($\mu\text{g/L}$) ^{2,3}		0.21	Monthly	Grab
Color (Pt-Co Units) ^{2,3}		15	Quarterly	Grab
Copper (Cu) ($\mu\text{g/L}$) ^{2,3}		6.9	Monthly	Grab
Cyanide, Free (CN) ($\mu\text{g/L}$) α ξ ^{2,3,4,6}		14.7	Monthly	Grab
Dissolved Oxygen (mg/L) α ^{1,2,3}	Shall not contain less than 5.0.		Daily	Grab

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type
Flow m ³ /day (MGD) ^{1,3,5}		423.90 (0.112)	Continuous Recording	
Lead (Pb) (µg/L) α ^{2,3,4,5}		8.8	Monthly	Grab
Mercury (Hg) (µg/L) β ^{2,3,8}		0.012	Quarterly	Grab
Oil & Grease (mg/L) ^{2,3}	The water of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum derived oils and greases.		Twice per Month	Grab
Pentachlorophenol (µg/L) ^{2,3}		----	φ	Grab
pH (SU) ^{2,3}	Shall always lie between 6.0 and 9.0.		Daily	Grab
Residual Chlorine (mg/L) γ ^{2,3}		0.50	Daily	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.		----	----
Sulfide (Undissociated H ₂ S) (µg/L) δ ^{2,3}		2	Quarterly	Grab

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>		
	Monthly Avg.	Daily Max	Measurements Frequency	Sample Type	
Suspended, Colloidal or Settleable Solids (mL/L) ^{1,2,3}		Solids from wastewater 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 to exceed 90 °F (32.2 °C).	Daily	Grab	
Total Ammonia (NH ₃) (mg/L) α ^{2,3,4,6}			----	Monthly	Grab
Total Dissolved Solids (mg/L) ^{2,3}		500		Monthly	Grab
Total Phosphorus (P) (mg/L) α ^{2,3,4,6}		7.32		Monthly	Grab
Turbidity (NTU) ^{2,3}		50		Monthly	Grab
Zinc (Zn) (μ g/L) α ^{2,3,4,6}		144.90		Monthly	Grab
Special Conditions		See attached sheets, which contain special conditions that constitute part of this certification.	----	----	

1, 2, 3, 4, 5 and 6 see page 13.

To comply with the monitoring requirements specified above, samples shall be taken at the outfall of discharge serial number 001.

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

α A Waste Load Allocation (WLA) was performed in order to develop the water quality-based effluent limitation.

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

γ See special conditions 6 and 7.

β See special condition 10.

δ See special condition 11.

ϕ The permittee shall implement a monthly monitoring program using the analytical method approved by EPA with the lowest possible detection level, in accordance with Rule 1306.2(C) of the PRWQSR, as amended, for one (1) year period, after which they will be conducted annually. The monitoring program shall commence not later than thirty (30) days after the EQB's written approval of the Quality Assurance Project Plan (QAPP). The QAPP must be submitted for evaluation and approval of EQB not later than thirty (30) days after the EDP. The results of the monitoring program shall be submitted to EQB and EPA-Region 2 no later than sixty (60) days of completion of the one year monitoring program. Based on the evaluation of the results obtained, EQB will determine if an effluent limitation is necessary for this parameter. In such case, the WQC will be reopened to include the applicable effluent limitation.

1, 2, 3, 4, 5, 6 and 8 see page 13 of special conditions

TABLE A-2 WASTE LOAD ALLOCATION (WLA) MONITORING REQUIREMENTES

The EQB has performed a WLA pursuant Article 10 of the PRWQSR. During the period beginning within EDP + 60 days and lasting through one year, after which the monitoring shall be conducted annually, the permittee shall perform ambient monitoring at the immediate vicinity¹ of the discharge station and the background² monitoring station as specified below. Within thirty (30) days of completion of the one year monitoring period, the permittee shall submit a report to EQB and EPA containing the ambient monitoring results obtained as well as the monthly monitoring results obtained during the same time period at the sampling point for discharge 001 for the below parameters. Based on the evaluation of the results obtained, EQB shall determine if the effluent limitations established shall remain as is or if it is necessary to re-open the WQC to modify (increase or decrease) the effluent limitation for the below parameters.

Receiving Water Name and Classification: Toro Negro River, SD

<u>Parameters</u>	<u>Monitoring Requirements</u>	
	Measurements Frequency	Sample Type
Cyanide, Free (CN) (µg/L)	Monthly	Grab
Hardness ³ (as CaCO ₃) (mg/L)	Monthly	Grab
Lead (Pb) (µg/L)	Monthly	Grab
Total Phosphorus (P) (mg/L)	Monthly	Grab
Zinc (µg/L)	Monthly	Grab

Notes:

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- 1 The immediate vicinity of the discharge station shall be located eighty seven (87) meters downstream from discharge 001.
 - 2 The background sampling station shall be located five (5) meters upstream from discharge 001.
 - 3 Monitoring is only required at the background monitoring station.

TABLE A-3 MULSMP MODEL CALIBRATION MONITORING REQUIREMENTS

During the period beginning within EDP + 60 days and lasting through one year, the permittee shall implement a monitoring program to obtain the necessary data required to calibrate the MULSMP mathematical model as specified below. Sampling for all parameters shall be performed on the same day. Within thirty (30) days of complementation of the one year monitoring program, the permittee shall submit a report to EQB and EPA containing the results obtained as well as the monthly monitoring results obtained during the same time period at the sampling point for discharge 001 for the below parameters.

Receiving Water Name and Classification: Toro Negro River, SD

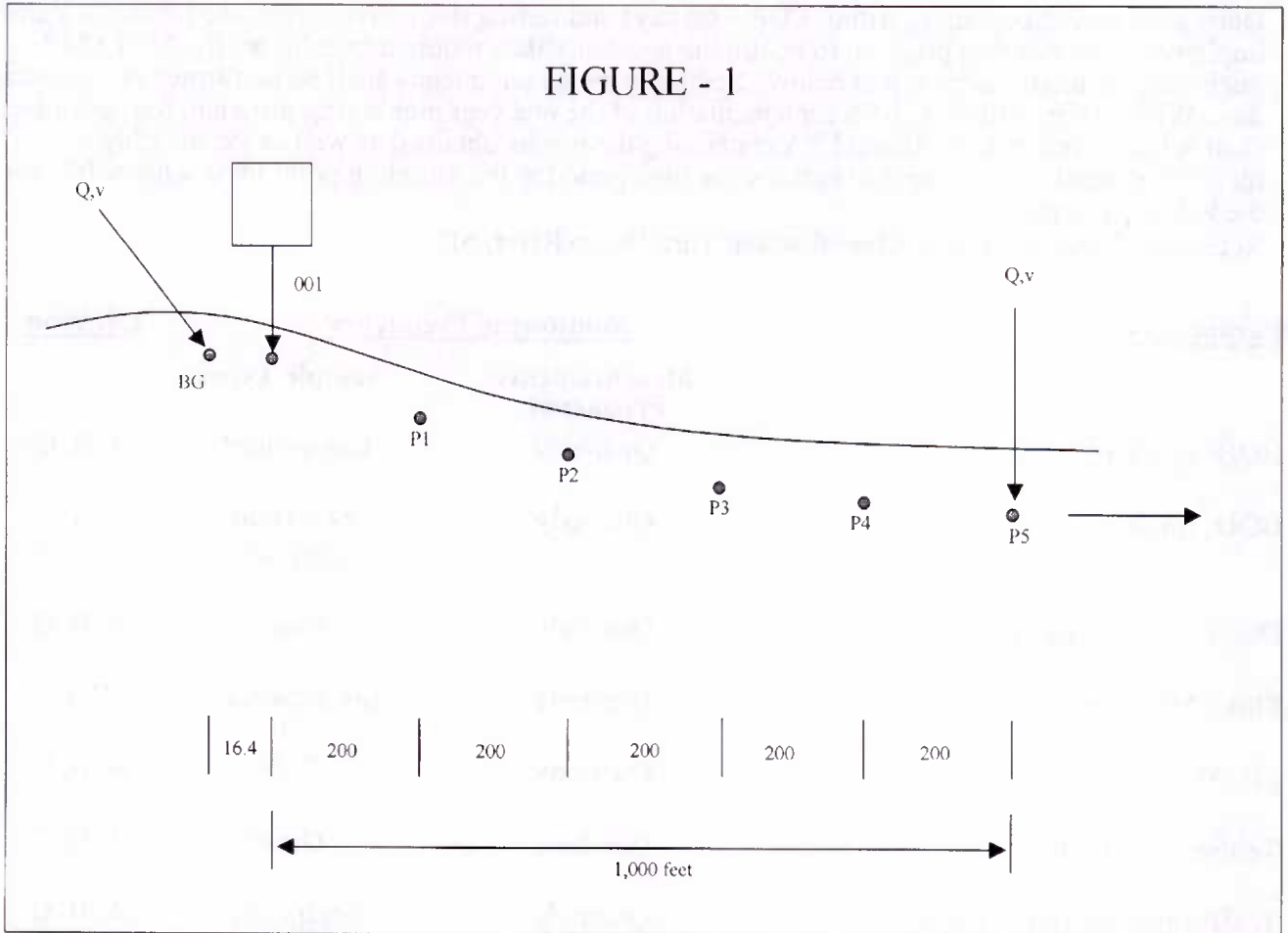
<u>Parameters</u>	<u>Monitoring Frequency</u>		<u>Location</u>
	Measurements Frequency	Sample Type	
BOD ₅ (mg/L)	Quarterly	Composite*	A, B, C
BOD _u (mg/L)	Quarterly	24 – Hour Composite	A
Dissolved Oxygen (mg/L)	Quarterly	Grab	A, B, C
Flow (MGD, cfs)	Quarterly	Instantaneous	B, D
pH (SU)	Quarterly	Grab	A, B, C
Temperature (°F)	Quarterly	Grab	A, B, C
Total Ammonia (NH ₃) (mg/L)	Quarterly	Composite*	A, B, C
Velocity (Avg.) (ft/s)	Quarterly	Instantaneous	B, D

* Samples shall be taken at (1) one hour intervals for (6) six consecutive hours. These shall be grab samples that will be mixed in equal portions to prepare a composite sample at each one of the required locations.

Sampling Locations:

- A= Point of discharge 001.
- B= Background station, located five (5) meters from discharge 001.
- C= Five (5) points downstream of the discharge 001 along a receiving water segment of one thousand (1000) feet, as shown in Figure 1 (next page).
- D= Point number 5, located one thousand (1000) feet from the discharge 001.

FIGURE - 1



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 423.90 m³/day (0.112 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a recertification from the Environmental Quality Board (EQB). ^{1,5}
2. The discharge 001 will consist of filters backwashes and sedimentation tanks drains.
3. No changes in the design or capacity of the Sludge Treatment System (STS) will be permitted without the previous authorization of EQB. ⁵
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. ⁵
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. ^{1,3}
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 renewal application, but not regulated by the NPDES permit, shall not exceed the concentrations specified in the applicable regulatory limitations. ^{2,3}
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. ²
8. The discharge 001 shall not cause the presence of oil sheen in the receiving water body. ²
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. ^{1,3}
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 Water Quality Standards Regulation (PRWQSR) as amended. ³