

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION II
City View Plaza II – Suite 7000
48 Road 165 Km 1.2
Guaynabo, Puerto Rico 00968-8069

STATEMENT OF BASIS
DRAFT NPDES PERMIT TO DISCHARGE
INTO THE WATERS OF THE UNITED STATES

NPDES Application No. PR0025143

Name and Address of Applicant:

Puerto Rico Department of Education
Aibonito Beltran School
P.O. Box 195644
San Juan, Puerto Rico 00919-5644

Name and Address of Facility
where Discharge Occurs:

Wastewater Treatment Plant
State Road 457, Km. 0.4
San Sebastián, Puerto Rico 00685

Receiving Water: Unnamed Creek Tributary to Guajatca Lake

Classification: SD

Name of Preparer: Sergio Bosques

I. LOCATION OF DISCHARGE

The above named applicant has applied for a National Pollutant Discharge Elimination System (NPDES) permit, to the U.S. Environmental Protection Agency (EPA) to discharge into the designated receiving water. The location of the discharge, Outfall 001, is described by the following U.S.G.S. coordinates: 18° 22' 52" latitude by 66° 55' 55" longitude.

II. DESCRIPTION OF APPLICANT'S FACILITY AND DISCHARGE

The applicant is a public elementary school engaged in treatment of domestic sanitary waters at wastewater treatment plant. This activity has a Standard Industrial Classification (SIC) code of 4952. The applicant proposes to discharge 9.46 m³/day (0.0025 MGD) as a daily maximum of wastewater consisting of treated domestic sanitary flow discharge from outfall serial number 001 to unnamed creek tributary to Guajatca Lake. The receiving water has been classified SD by the Environmental Quality Board (EQB) of Puerto Rico.

III. DESCRIPTION OF LIMITATIONS AND CONDITIONS

A brief summary of the basis of each effluent limitation and other conditions in the draft permit is provided in Attachment I.

IV. STATE CERTIFICATION REQUIREMENTS

State Certification requirements, based upon a Water Quality Certificate (see Attachment II) issued by the Environmental Quality Board (EQB) of the Commonwealth of Puerto Rico. Review and appeals of limitations and conditions attributable to this certification shall be made through the applicable Commonwealth procedures and may not be through EPA procedures.

V. PROCEDURES FOR REACHING A FINAL DECISION ON THE DRAFT PERMIT

These procedures, which are set forth in Title 40 Code of Federal Regulation (40 CFR) Part 124, are described in the public notice of preparation of this draft permit. Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing and the nature of the hearing, and other procedures for participation in the final agency decision.

VI. EPA CONTACT

Additional information concerning the draft permit may be obtained between the hours of 8:00 A.M. and 4:30 P.M., Monday through Friday from:

Michelle Josilo, Acting Chief
Clean Water Regulatory Branch
U.S. Environmental Protection Agency
Region 2
290 Broadway, 24th Floor
New York, New York 10007-1866
(212) 637-3876

José C. Font, Acting Director
US EPA Region II
Caribbean Environmental Protection
Division
City View Plaza II – Suite 7000
48 Road 165 Km. 1.2
Guaynabo, Puerto Rico 00968-8069
(787) 977-5870

ATTACHMENT I

DESCRIPTION OF LIMITATIONS AND CONDITIONS FOR OUTFALL 001

The effluent limitations, monitoring requirements, and other conditions of this permit are described in the draft permit. The effluent limitations in the permit are equivalent to the most stringent values specified in the applicable technology-based guidelines or water quality-based limitations. All anti-backsliding decisions are made in accordance with EPA Region II Antibacksliding Policy dated August 10, 1993.

- I. Technology-based Limits – The basis for the technology-based effluent limitations for the discharge through Outfall 001 is provided as follows:

Outfall 001:

Total Suspended Solids - The 30-day average, 7-day average and 85% removal are technology-based on the level of effluent quality attainable through the application of secondary or equivalent treatment. The limit is based on Best Professional Judgment (BPJ) using the Effluent Limitations Guidelines (ELG) for Secondary Treatment Regulation described in 40 CFR Part 133.

- II. Biological Oxygen Demand - The 7-day average and 85% removal are technology-based on the level of effluent quality attainable through the application of secondary or equivalent treatment. The limit is based on Best Professional Judgment (BPJ) using the Effluent Limitations Guidelines (ELG) for Secondary Treatment Regulation described in 40 CFR Part 133.

II. Water Quality-based Limits

The effluent limitations listed in Tables A-1 for all contaminants, unless otherwise specified and all special conditions are as imposed in the Water Quality Certificate (WQC) issued by the EQB, dated May 23, 2012. The WQC was issued by the EQB for the purpose of assuring compliance with EQB's water quality standards and compliance with other appropriate requirements of State law as provided by Section 401(d) of the Clean Water Act.

The water quality-based effluent limitation from the previous permit for **Fluoride** is not included in the WQC issued by EQB. EPA has determined that it is appropriate to remove the effluent limitation for these parameters without violating the anti-backsliding provisions of the CWA, in accordance with section 402(o), since one of the exceptions to the provisions has been satisfied. CWA Sec. 402(o)(2)(B)(i) allows backsliding if information is available which was not available at the time of permit issuance and would have justified a less stringent effluent limitation at the time of permit issuance. Information submitted in the NPDES application and the Discharge Monitoring reports submitted during the previous permit indicate that the discharge from outfall 001 cannot reasonably be expected to contribute to a water quality exceedance for these parameters. Therefore, a water quality-based effluent limitation is not necessary for these

parameters. Antidegradation requirements are not violated by removing the limit for these parameters. Since the permittee will be discharging the pollutant at the same level, the discharge would not contribute to further degradation of the receiving water and existing uses would be maintained.

The water quality-based numerical limitation from the existing permit for **Oil & Grease** has an interim and final water quality-based limitation. The final water quality-based numerical limitation for this parameter has been replaced with a less stringent water quality-based limitation in the draft WQC issued by the EQB. EPA has determined that it is appropriate to relax the effluent limitation for this parameter without violating the anti-backsliding provisions of the CWA, in accordance with section 402(o), since one of the exceptions to the provisions has been satisfied. CWA Sec. 402(o)(2)(B)(i) allows backsliding if information is available which was not available at the time of permit issuance and would have justified a less stringent effluent limitation at the time of permit issuance. Information submitted in the NPDES application and the Discharge Monitoring reports submitted during the previous permit indicate that the discharge from outfall 001 cannot reasonably be expected to contribute to a water quality exceedance for these parameters. Therefore, a water quality-based effluent limitation is not necessary for these parameters. Antidegradation requirements are not violated by removing the limit for these parameters. Since the permittee will be discharging the pollutant at the same level, the discharge would not contribute to further degradation of the receiving water and existing uses would be maintained. The EQB water quality certificate constitutes a determination that the limit is sufficient to assure that the water quality standards are or will be attained.

All effluent limitations and monitoring requirements of parameters listed in Table A-1 are as imposed in the WQC issued by the EQB, dated May 23, 2012. Additional footnotes are added in Table A-1 under the parameters for BOD, TSS and Suspended, Colloidal, or Settleable Solids to clarify that required testing for these parameters should be conducted. The WQC was issued by the EQB for the purpose of assuring compliance with EQB's water quality standards and compliance with other appropriate requirements of State law as provided by Section 401(d) of the Clean Water Act.

General Conditions

These conditions apply to all permits as required by 40 CFR Part 122.41.

Special Conditions

Special Conditions No. 1 through 20 are part of the WQC.



COMMONWEALTH OF PUERTO RICO
OFFICE OF THE GOVERNOR
ENVIRONMENTAL QUALITY BOARD



Governing Board

RETURN RECEIPT REQUESTED

May 23, 2012

Mrs. Nilda Landrón Marrero
General Manager
Office for the Improvement of Public Schools
Puerto Rico Department of Education
P. O. Box 195644
San Juan, Puerto Rico 00919-5644

Dear Mrs. Landrón:

**RE: Water Quality Certificate
Aibonito Beltrán School Wastewater Treatment Plant
State Road No. 457, Km 0.4
San Sebastián, Puerto Rico
NPDES No. PR0025143**

We have received and reviewed the application for a permit under Section 402, National Pollutant Discharge Elimination System (NPDES), of the Federal Clean Water Act, as amended (33 U.S.C. 466 *et seq.*) (the Act) for the referenced facility.

Pursuant to Section 401 (a) (1) of the Act, after due consideration of the applicable provisions established in the Puerto Rico Water Quality Standards Regulation (PRWQSR), as amended and in Sections 208(e), 301, 302, 303, 304(e), 306 and 307 of the Act, it is certified that there is reasonable assurance as determined by the Environmental Quality Board (EQB) that the allowed discharge will not cause violations to the applicable water quality standards at the receiving water body if the limitations and monitoring requirements on Table A-1 are met.

Mrs. Nilda Landrón Marrero
WQC Aibonito Beltrán School
NPDES No. PR0025143
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The conditions specified in the aforementioned table shall be incorporated into the NPDES permit in order to satisfy the provisions of Section 301 (b) (1) (C) of the Act.

If you have any objection to the Water Quality Certificate (WQC), you have the right to request reconsideration to the EQB within the statutory period (twenty (20) calendar days from the date that the WQC is received).

The EQB reserves the right to comment at a later date concerning other environmental aspects of the discharge.



Mr. Reynaldo Matos Jiménez
Associate Member



Blanche González Hodge, Esq.
Associate Member



Pedro J. Nieves, Miranda, Esq.
Chairman

HJCA/dcc

c: Eng. José Font, EPA-CEPD
Ms. Michelle Josilo, EPA-2

SPECIAL CONDITIONS

NPDES No. PR0025143

These special conditions are an integral part of the Water Quality Certificate (WQC) and shall be incorporated into the NPDES permit in order to satisfy the provisions of Section 301(b)(1)(C) of the Federal Clean Water Act (CWA) as amended (33 U.S.C. 466 *et seq*):

1. The flow of discharge 001 shall not exceed the limitation of 9.46 m³/day (0.0025 MGD) as daily maximum. No increase in flow of discharge 001 shall be authorized without a re-certification from the Puerto Rico Environmental Quality Board (EQB). ^{1,4}
2. No changes in the design or capacity of the treatment system will be permitted without the previous authorization of EQB. ⁴
3. 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
4. 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}
5. 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}
6. 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
7. The discharge 001 shall not cause the presence of oil sheen in the receiving water body.²
8. 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 licensed microbiologist or medical technologist authorized to practice the profession in Puerto Rico. ^{1,3}
9. 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. ^{1,3}

Special Conditions

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10. The permittee shall use the EPA approved analytical method, 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-S² F, Calculation of Un-ionized Hydrogen Sulfide, of Standards Methods 18th Edition, 1992, to determine the concentration of undissociated H₂S. If the samples results of Dissolved Sulfide are below the detection limit of the approved EPA method established in the 40 CFR, Part 136, then, the concentration of undissociated H₂S shall be reported as "below detection limit".^{1,3}
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 applicable Rules and Regulations.^{3,4}
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 dimension) sign that reads as follows:

"Punto de Muestreo para la Descarga 001"

14. All water or wastewater treatment facilities, whether publicly or privately owned, must be operated by a person licensed by the Potable Water and Wastewater Treatment Plants Operators Examining Board of the Commonwealth of Puerto Rico.³
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 quarterly 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* (*Phimephales promelas*) and *Cladocera* (*Daphnia magna*). The test 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-hour period. The test results shall be expressed in terms of Lethal Concentration (LC) and reported as 48-hour, LC₅₀.
 - 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 seven-day two-year low flow (7Q₂).
 - 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 a review of the test results, the Regional Administration 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 treatment system 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 waste 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 Solid Wastes Program and other state and federal agencies, if any. ^{4,5}

17. A log book must be kept for the material removed from the treatment system (solids wastes as sludge, screenings and grit) 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 offers the service.

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

18. The sludge produced within the facility due to the operation of the treatment system shall be analyzed and all constituents shall be identified as required by "Standards for the

Use or Disposal of Sewage Sludge” (40 CFR, Part 503). The sludge shall be disposed properly in such manner that water pollution or other adverse effects to surface waters or to ground water do not occur. ^{3,5}

19. If any standard or prohibition to the sanitary sludge disposal is promulgated and said prohibition or standard is more stringent than any condition, restriction, prohibition or standard contained in the NPDES permit, such permit shall be modified accordingly or revoked and reissued to be adjusted with regard to such prohibition or standard. ⁵
20. Within thirty (30) days after the Effective Date of the NPDES Permit (EDP), the PRDE shall submit to the EQB a copy of the Emergency Plan (EP), in accordance with Rule 1306.5 of the PRWQSR to prevent and control spills. The EP shall be signed and certified by a professional licensed engineer authorized to practice the profession in Puerto Rico. ³
21. Each condition of this WQC is considered as separate. Therefore, if the applicability of any condition of this WQC is stayed due to any circumstance, the remaining conditions of this WQC will not be affected.
22. The EQB, by the issuance of this WQC, does not relieve the applicant from its responsibility to obtain additional permits or authorizations from EQB as required by law. The issuance of the WQC shall not be construed as an authorization to conduct activities not specifically covered in the WQC, which will cause water pollution as defined by the PRWQSR. ⁴

1, 2, 3, 4, 5 and 6, 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.
5. According to the Section 405 (d) (4) of the Federal Clean Water Act as amended (33 U.S.C 466 *et seq.*).
6. According to the Code of Federal Regulation Number 40 (40 CFR), Part 131.36, as amended (Federal Register/Volume 57, No. 246/Tuesday, December 22, 1992).

TABLE A-1 EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS NPDES No. PR0025143

During the period beginning on EDP and lasting through EDP + 5 years, the permittee is authorized to discharge from outfall serial number 001, secondary treated sanitary wastewaters coming from Albonito Beltrán School Wastewater Treatment Plant. Such discharge shall be limited and monitored by the permittee as specified below:

Receiving Water Name and Classification: Unnamed creek tributary to Lago de Guajataca, SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitation</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Arsenic (As) (µg/L) ^{2,3}		10	Monthly	Grab
BOD ₅ (mg/L) ^{1,2,3}		5.0	Monthly	Composite
Color (Pt-Co Units) ^{2,3}		15	Monthly	Grab
Copper (Cu) (µg/L) ^{2,3}		11	Monthly	Grab
Dissolved Oxygen (mg/L) ^{1,2,3}	Shall not be less than 5.0.		Daily	Grab
Fecal Coliforms (colonies/100 mL) ^{1,2,3}	The geometric mean of a series of representative samples (at least five samples), of the waters taken sequentially shall not exceed 200 colonies/100 mL. Not more than 20 percent of the samples shall exceed 400 colonies/100 mL.			
Flow m ³ /day (MGD) ^{1,3,4}		9.46 (0.0025)	Continuous Recording	
Mercury (Hg) (µg/L) ^{φ 2,3,6}		----	φ	Grab
Nitrate + Nitrite (µg/L) ^{2,3}		10,000	Monthly	Grab

TABLE A-1

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

NPDES No. PR0025143

Receiving Water Name and Classification: Unnamed creek tributary to Lago de Guajataca, SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitation</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Oil & Grease (mg/L) ^{2,3}	The waters 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
Other Pathogenic Organisms ^{2,3}	These waters shall be free of other pathogenic organisms different to coliforms.		----	----
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) ($\mu\text{g/L}$) δ ^{2,3}		2	Monthly	Grab
Surfactants (as MBAS) ($\mu\text{g/L}$) ^{1,2,3}		100	Monthly	Grab
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

TABLE A-1

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

NPDES No. PR0025143

Receiving Water Name and Classification: Unnamed creek tributary to Lago de Guajataca, SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitation</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
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) ^{2,3}		1.000	Monthly	Grab
Total Coliforms (colonies/100 mL) ^{1,2,3}	The coliform geometric mean of a series of representative samples (at least five samples) of the waters taken sequentially shall not exceed 10,000 colonies/100 mL.		Monthly	Grab
Total Dissolved Solids (mg/L) ^{2,3}		500	Monthly	Grab
Total Phosphorus (P) (mg/L) ^{2,3}		1.00	Monthly	Grab
Total Suspended Solids (mg/L) ³		----	Monthly	Composite
Turbidity (NTU) ^{2,3}		50	Monthly	Grab
Special Conditions	See attached sheet, which contains special conditions that constitute part of this certification.		----	----

Receiving Water Name and Classification: Unnamed creek tributary to Lago de Guajataca, SD

Notes:

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

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

γ See Special Conditions 5 and 6.

φ See Special Condition 9.

δ See Special Condition 10.

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 and 6, see page 6 of Special Conditions.