

**ATTACHMENT D**

**RESPONSIVENESS SUMMARY**

**AND CHANGES FOR**

**DRAFT PERMITS**

**AGUADILLA RWWTP (NPDES PERMIT NO. PR0023736)**

**ARECIBO RWWTP (NPDES PERMIT NO. PR0023710)**

On **June 26, 2015**, the United States Environmental Protection Agency (EPA) public noticed the draft National Pollutant Discharge Elimination System (NPDES) permits for the above mentioned facilities owned by the Puerto Rico Aqueduct and Sewer Authority (PRASA). After a time extension requested by PRASA, the public comment period for the draft NPDES permits expired on August 11, 2015.

According to 40 Code of Federal Regulations (CFR) 124.17, at the time that any final permit decision is issued under 124.15, EPA shall issue a response to comments. This response shall (1) specify which provisions, if any, of the draft permit have been changed in the final permit decision and the reasons for the change; and (2) briefly describe and respond to all significant comments on the draft permit raised during the public comment period, or during any hearing.

Comments made on behalf of PRASA were received in two letters from Irma M. López Santos, dated August 17, 2015, from the following address:

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

All comments received have been reviewed and considered in this final permit decision. A discussion and response to the comments received is found below. Unless otherwise noted, the comments common to both permits are responded to jointly.

**A. SPECIFIC COMMENTS FOR AGUADILLA RWWTP DRAFT PERMIT**

**1) Comment 1: Table A-1 “Monitor Only”**

In the table of effluent limitations, the limitation for flow include a “Monitor Only” limitation for average weekly flow in addition to average monthly flow and maximum daily flow. Monitoring average weekly flow is not a normal or expected monitoring requirements. It is noted that daily flows are logged at the RWWTP and

are available if needed. PRASA believes that monitoring for average weekly flow is unnecessary and requests that it be removed from the table of effluent limitations.

**Response:** EPA has revised Table A-1 eliminating the “Monitor Only” Limitation to “Flow” as average weekly.

2) **Comment 2: Table A-1, Fecal Coliforms**

In the table of effluent limitations a Daily Maximum Limitation of 400 colonies/100 mL is included for Fecal Coliforms. This parameter is regulated in two ways, by the geometric mean and in the percent of the samples exceeding 400 colonies/100 mL. The 400 colonies/100 mL is not a daily maximum limit. Therefore PRASA request that dashes (--) must be included in the Maximum Daily Column instead of the 400 value.

**Response:** EPA has revised Table A-1 for Fecal Coliform, the 400 colonies/100 mL limitation was eliminated from the Daily Maximum. In addition, the limitation in the “% exceeding limit” was modified to read “20% cannot exceed 400 colonies/100 mL”.

3) **Comment 3: Table A-1, Zinc**

The limitation for Zinc (Zn) is listed as 131.42 µg/L. The final Water Quality Certificate (WQC) issued by the Puerto Rico Environment Quality Board (EQB) lists a limitation for Zn of 151.06 µg/L. PRASA requests that the limitation be changed to 151.06 µg/L.

**Response:** This was a typographical error, the limitation for Zn was revised to read 151.06 µg/L.

4) **Comment 4: Table A-1, Chronic Toxicity**

In the table of effluent is required based on data presented in the Mixing Zone Application. PRASA requests this limitation be removed since in Special Condition 19(n) states the authority of EQB to request additional studies if the toxicity show unacceptable results.

**Response:** The Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." (CWA §101(3)). Federal regulations at 40 CFR §122.44(d)(1) require EPA and the delegated states to evaluate each National Pollutant Discharge Elimination System (NPDES) permit for the potential to exceed state numeric or narrative water quality standards, including

those for toxics, and to establish effluent limitations for those facilities with the "reasonable potential" to exceed those standards. These regulations require both chemical specific limits, based on the state numeric water quality standards or other criteria developed by EPA, and whole effluent toxicity effluent limits.

The Puerto Rico Water Quality Standards Regulation (PRWQSR), as amended by the Environmental Quality Board of Puerto Rico (EQB) on August 19, 2014, includes the criterion that "The waters of Puerto Rico shall not contain any substance at such concentration which, either alone or as a result of synergistic effects with other substances is toxic or produces undesirable physiological responses in human, fish, or other fauna or flora." (Rule 1303.1.I). The PRWQSR further defines the numeric interpretation of this narrative standard as not causing an exceedance of either 0.3 acute toxicity units (TUa) or 1.0 chronic toxicity units (TUc). These numeric values are consistent with those recommended in the EPA draft guidance manual referenced above.

Region 2 has developed an implementation strategy designed to support and implement the national policy and regulations, as well as the PRWQSR, in order to ensure that no source (industrial or municipal) will be allowed to discharge any wastewater which results in acute or chronic aquatic toxicity within a receiving water; or causes a violation of an applicable general or numerical state water quality standard. In this case, the combined discharge point has demonstrated reasonable potential to cause or contribute to an exceedance of the Puerto Rico water quality standard for chronic toxicity, at the edge of the approved mixing zone. Where reasonable potential is demonstrated, EPA must include an effluent limitation for whole effluent toxicity.

5) **Comment 5: Table A-1, Toxicity Monitoring Frequency**

In the table of effluent limitations, quarterly toxicity testing is required. PRASA requests that toxicity testing frequency of once per quarter for one year and annually thereafter be specified as typical in other PRASA permits.

**Response:** The change in frequency requested by the permittee is denied. As explained above in Response 4, reasonable potential to cause or contribute to an exceedance of the Puerto Rico Water Quality Standard for chronic toxicity has been demonstrated for the combined discharge. As a result, a numeric effluent limitation has been included for chronic toxicity. EPA considered the information raised in this comment regarding the cost of frequent toxicity monitoring, and determined that quarterly monitoring will be adequate for regular, representative results, and further that monthly monitoring will not be necessary. However, less frequent monitoring than quarterly sampling would not be acceptable for determining compliance with a numeric effluent limitation, particularly where reasonable potential has been

demonstrated. Additionally, due to the mixing zone approved for this combined discharge, and the Clean Water Act §301(h) Waiver approved for the PRASA facilities, EPA has an additional responsibility to ensure that the combined discharge does not cause or contribute to an exceedance of the chronic water quality standard for toxicity at the edge of the mixing zone for the duration of this permit cycle. Therefore, no change has been made to allow the monitoring frequencies for whole effluent toxicity to be reduced to annually after the first year of the permit term.

6) **Comment 6: Table A-2 & A-3**

The receiving water monitoring is specified as required between EDP + 4 months and EDP + 16 months. However, in special conditions 19.u and 19.v, the draft permit requires approval of the Protocol and Quality Assurance Project Plan (QAPP) for this monitoring by EQB and further indicates the one year monitoring program be conducted during 2 seasons. The QAPP is due within 90 days of EDP and the monitoring must start with ninety days of QAPP approval by EQB. This is inconsistent with the requirement in Table A-2, particularly because there is no specific time from for EQB approval. PRASA requests that the condition for the monitoring period be replaced with either reference to Special Condition 19.u and 19.v (in the draft permit) or that the requirement be modified to include the phrase "...or as specified by EQB..." to eliminate inconsistency.

**Response:** EPA has modified the language in Table A-2 & A-3 to read "...or as specified by EQB..."

7) **Comment 7: Special Condition 19.a**

Special Condition 19.a of the draft permit lists the coordinates of the mixing zone sampling stations. The coordinates listed are not correct and are not listed in EQB's final WQC. PRASA requests that this coordinates be corrected as shown:

**Geographic Coordinates\***

Point 1	Lat. 18° 24' 26.87 Long. 67° 11' 21.40"
Point 2	Lat. 18° 24' 28.80 Long. 67° 11' 20.90"
Point 3	Lat. 18° 24' 27.86" Long. 67° 11' 16.91"

**Geographic Coordinates\***

Point 4	Lat. 18° 24' 31.38" Long. 67° 11' 15.08"
Point 5	Lat. 18° 24' 30.49" Long. 67° 11' 13.21"
Point 6	Lat. 18° 24' 25.54" Long. 67° 11' 15.79"

**Response:** EPA has modified the geographic coordinates on Special Condition 19.a to read as PRASA requested.

8) **Comment 8: Special Condition 19.c**

This Special Condition requires PRASA to determine and submit to EQB the coordinates of the mixing zone background stations for approval. PRASA determined these coordinates and they are listed in the final WQC by EQB. PRASA requests that these approver coordinates be included in the final permit rather than the condition as stated in the draft permit. The coordinates are as follows:

**Geographic Coordinates**

Background Station Point 2	Lat. 18° 24' 29.59" Long. 67° 11' 24.21"
Background Station Point 4	Lat. 18° 24' 34.29" Long. 67° 11' 13.57"

**Response:** EPA has modified the geographic coordinates on Special Condition 19.a to read as PRASA requested.

9) **Comment 9: Special Condition 19.e**

Special Condition 19.e in the draft permit lists an effluent limitation for color as 62 color units. The Effluent Limitation table in the draft permit and the final WQC list

this limitation as 65 color units. PRASA Requests that the effluent limitation for color in this special Condition be changed to 65 color units.

**Response:** This was a typographical error, the limitation for Color in Special Condition 19.e was revised to read 65 color units.

10) **Comment 10: Special Condition 21**

This special condition in the draft permit requires quarterly toxicity testing and provides for accelerated testing and the development of a TRE workplan. PRASA does not believe an effluent limitation, specific requirements for accelerated testing, or a detailed TRE workplan, is required based on previous toxicity data presented in the Mixing Zone Application. PRASA requests that this condition be removed and a condition similar to that in the Arecibo draft permit be used – that is EQB may require additional studies if the toxicity testing shows unacceptable results. In addition, PRASA requests that toxicity testing frequency of one per quarter for one year and annually thereafter be specified as typical and is used in the Arecibo permit (See comment 4 above).

**Response:** See response to Comment 5, above.

11) **Comment 11: Mark ups**

PRASA requests that EPA review the markups of the draft permit and associated fact sheet and resolve the comments on those documents provided by PRASA.

**Responses:** Some of the mark ups suggestions were made. A summary of this changes is described below.

**Permit:**

- a) Geographical Coordinates in the cover page were revised as PRASA requests.
- b) Non Industrial Source Control Program and EPA's Prohibited Discharge Standards Requirements were included in the permit as they are 301(h) requirements.
- c) Reference to Footnotes in Table A-1 were revised.
- d) Special Conditions numbering was revised.
- e) The In-stream Waste Concentration for this discharge was revised to read 0.64% as requested by PRASA, in Special Condition 21.a.4.

**Fact Sheet:**

- f) Clarified EQB's requirement to validate the Mixing Zone,
- g) Geographic Coordinates and typo were revised as requested by PRASA.
- g) TMDL was spelled out in the Fact Sheet.
- h) Averaging Period was revised to Minimum for % removal, Dissolved Oxygen, and pH.
- i) The least stringent limitations in Part II.C.3 were revised and added Color, Copper, Oil & Grease, Total Nitrogen, Turbidity and Zinc.
- j) The removed limitations in Part II.C.3 was revised and Phenolic Substances was also included.

**B. CHANGES TO THE AGUADILLA RWWTP FINAL PERMIT**

- 1) Residual Chlorine limitation was revised according to PREQB Puerto Rico Water Quality Standards. The numeric limitation now for Residual Chlorine is 11 µg/L.
- 2) EDP has been revised to December 1, 2015.

**C. SPECIFIC COMMENTS FOR ARECIBO RWWTP DRAFT PERMIT**

**1) Comment 1: Table A-1 "Average Monthly"**

In the table of effluent limitations, the limitation for 5-day biochemical oxygen demand (BOD<sub>5</sub>) lists a maximum daily limitation of 120 milligrams per liter (mg/L). PRASA believes that this should be an average monthly limitation and requests that this limitation be changed to Average Monthly.

**Response:** EPA has revised Table A-1 eliminating the "Maximum Daily" Limitation to "BOD<sub>5</sub>" as average monthly.

**2) Comment 2: Table A-1, "Fecal Coliforms"**

In the table of effluent limitations a Daily Maximum Limitation of 400 colonies/100 mL is included for Fecal Coliforms. This parameter is regulated in two ways, by the geometric mean and in the percent of the samples exceeding 400 colonies/100 mL. The 400 colonies/100 mL is not a daily maximum limit. Therefore PRASA request that dashes (--) must be included in the Maximum Daily Column instead of the 400 value.

**Response:** EPA has revised Table A-1, sample type for Fecal Coliform, to read “Geometric mean” instead of “calculated”. This should clarify PRASA’s concern with the Fecal Coliform limitation.

3) **Comment 3: Table A-1, “Zinc”**

The monitoring frequency for limitation for Zinc (Zn) is listed as 1/Month. The final Water Quality Certificate (WQC) issued by the Puerto Rico Environment Quality Board (EQB) requires monitoring on a quarterly basis. PRASA believes that Zn should be monitored quarterly per EQB’s WQC and requests that the required sampling frequency be changed to quarterly.

**Response:** EPA has revised Table A-1 eliminating the “1/Month” sampling frequency to “Zn” as quarterly.

4) **Comment 4: Table A-2 & A-3**

The receiving water monitoring is specified as required between EDP + 4 months and EDP + 16 months. However, in special conditions 21.u and 21.v, the permit requires approval of the Protocol and Quality Assurance Project Plan (QAPP) for this monitoring by EQB and further indicates the one year monitoring program be conducted during two seasons. The QAPP is due within 90 days of EDP and the monitoring must start with ninety days of QAPP approval by EQB. This is inconsistent with the requirement in Table A-2, particularly because there is no specific time from for EQB approval. PRASA requests that the condition for the monitoring period be replaced with either reference to Special Condition 21.u and 21.v or that the requirement be modified to include the phrase “...or as specified by EQB...” to eliminate inconsistency.

**Response:** EPA has modified the language in Table A-2 & A-3 to read “...or as specified by EQB...”.

5) **Comment 5: Special Condition 21**

Special Condition 21.h requires quarterly toxicity testing and Special Condition 21.j requires quarterly testing for one year and annually thereafter. PRASA requests that Special Condition 21.h be modified (possibly by eliminating “...quarterly...” to eliminate the discrepancy.

**Response:** Water quality based permitting requirements at 40 CFR 122.44(d)(1) require EPA and delegated states to evaluate each National Pollutant Discharge Elimination System (NPDES) permit for the potential to exceed state numeric or narrative water quality standards, including those for toxics, and to establish effluent limitations for those facilities with the "reasonable potential" to exceed those

standards. Federal regulations require both chemical specific limits, based on the state numeric water quality standards or other criteria developed by EPA, and whole effluent toxicity effluent limits if reasonable potential to exceed water quality standards is determined.

EPA examined the results submitted by PRASA for their potential to cause or contribute to an excursion of the Puerto Rico water quality criterion for chronic and acute toxicity. And the results showed that no effluent limitation is needed since the results were greater than 100% survival for acute toxicity, which corresponds to less than 1.0 acute toxic units (TUa). EPA has chosen to continue to require monitoring to ensure that there is no unacceptable toxicity or reasonable potential to exceed the water quality standard of 0.3 TUa. For this reason, we are keeping the WET condition as established in the draft permit.

6) **Comment 6: Mark ups**

PRASA requests that EPA review the markups of the draft permit and associated fact sheet and resolve the comments on those documents provided by PRASA.

**Responses:** Some of the mark ups made were changes. A summary of this changes is described below:

**Permit:**

- a) Geographical Coordinates in the cover page were revised as PRASA requests.
- b) Reference to Footnotes in Table A-1 were revised.
- c) Special Conditions numbering was revised.

**Fact Sheet:**

- f) Geographic Coordinates and typo were revised as requested by PRASA.

**D. CHANGES TO THE ARECIBO RWWTP FINAL PERMIT**

- 1) EDP has been revised to December 1, 2015.