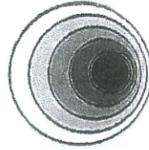


CZ-2015-0320-073



**BUCKEYE CARIBBEAN TERMINALS, LLC**

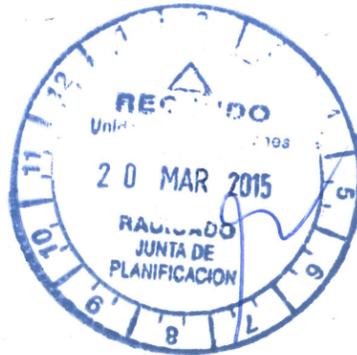
*Celebrating 125 Years of Service*  
1886 - 2011

Carrier 901 Km 2.7  
Bo Camino Nuevo  
P.O. Box 186  
Yabucoa, Puerto Rico 00767-0186  
Tel (787) 893-2424  
Fax (787) 266-3474

Wednesday, March 18, 2015

Ms. Rose Ortiz  
Puerto Rico Coastal Zone Management Program  
Puerto Rico Planning Board

**Re: Coastal Zone Certification**  
**NPDES Permit Application Revision No. 2**  
**Permit No. PR0000400**  
**Buckeye Caribbean Terminals LLC**  
**Yabucoa, Puerto Rico**



Dear Ms. Ortiz:

Enclosed please the application and supporting documents for the Coastal Zone Certification, as per the Environmental Protection Agency request in a letter dated January 21, 2014 related to the NPDES Application Revision submitted for the Buckeye Caribbean Terminals LLC ( BCTL) petroleum bulk discharge terminal located at State Road 901, km 0.7, Yabucoa, Puerto Rico. The application includes four (4) copies of the following documents, as per a recent email communication with Ms. Rose Ortiz, included in Attachment 1 of this letter:

- Completed JP-833 form
- Explanatory memorandum
- Coastal Zone Certification request
- Topographic map
- Facilities and surroundings aerial picture
- DRAFT Water Quality Certificate and response letter
- NPDES permit application notice of completeness and request for information
- NPDES permit application forms
- Additional supplementary information

*Recibido*  
2015 MAR 30 AM 9:44  
Junta de Planificación  
Negocio, Planes de  
Usos de Terrenos

**Attachment I**

**Gonzalez, Gretchen**

---

**From:** ROSE A. ORTIZ DIAZ <Ortiz\_R@jp.pr.gov>  
**Sent:** Friday, March 06, 2015 11:52 AM  
**To:** Gonzalez, Gretchen  
**Subject:** RE: Solicitud de Certidficacion de Zona Costera  
**Attachments:** JP-833.doc

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Estimada Sra. González:

Le informo que para solicitar la Certificación de Compatibilidad Federal debe radicar cuatro (4) copias de lo siguiente:

- 1) Forma JP-833 debidamente completada y firmada por el solicitante.
- 2) Certificado de Calidad de Agua emitido por la Junta de Calidad Ambiental para la descarga propuesta. Puede radicar el borrador si aún no ha salido el final.
- 3) Copia de la solicitud radicada ante la EPA para obtener el permiso de descarga NPDES.
- 4) Información sobre la descarga propuesta: de donde se origina; indicar cuál es el cuerpo de agua receptor e incluir un análisis sobre los impactos de la misma en las aguas costeras y otros recursos. Puede proveer copia del documento ambiental en forma digital (en un CD) y hacer referencia al mismo para proveer esta información.

Le incluyo la forma JP-833 en formato PDF como "attachment". Espero que esta información sea de ayuda y estamos a su disposición para cualquier pregunta o asistencia.

Atentamente,

Rose A. Ortiz  
Unidad de Zona Costanera  
Junta de Planificación  
(787) 722-0101 ext. 16012

---

**From:** Gonzalez, Gretchen [<mailto:ggonzalez@mppr.com>]  
**Sent:** Friday, March 6, 2015 11:12 AM  
**To:** ROSE A. ORTIZ DIAZ  
**Cc:** Luis Campos  
**Subject:** Solicitud de Certidficacion de Zona Costera  
**Importance:** High

Saludos Sra. Ortiz,

Actualmente ARCADIS se encuentra gestionando la obtención del Certificado de Calidad de Agua con el Ing. Luis Campos para Buckeye Caribbean Terminal, LLC en Yabucoa, Puerto Rico. Una de las tareas a ejecutar es obtener la Certificación de Zona Costera. Tengo entendido usted es la persona en la Junta de Planificación que trabaja en esta área. ¿Puede usted enviarme los requisitos para adquirir la Certificación de Zona Costera o cualquier formulario que tenga que completar para la misma?

Commonwealth of Puerto Rico  
Office of the Governor  
Puerto Rico Planning Board  
Physical Planning Area  
Land Use Planning Bureau

Application for Certification of Consistency with the  
Puerto Rico Coastal Management Program



General Instructions:

- A. Attach a 1:20,000 scale, U.S. Geological Survey topographic quadrangular base map of the site.
- B. Attach a reasonably scaled plan or schematic design of the proposed object, indicating the following:
  - 1. Peripheral areas
  - 2. Bodies of water, tidal limit and natural systems.
- C. You may attach any further information you consider necessary for proper evaluation of the proposal.
- D. If any information requested in the questionnaire does not apply in your case, indicate by writing "N/A"(not applicable).
- E. Submit a minimum of seven (7) copies of this application.

**DO NOT WRITE IN THIS BOX**

Type of application: \_\_\_\_\_ Application Number: \_\_\_\_\_

Date received: \_\_\_\_\_ Date of Certification: \_\_\_\_\_

Evaluation result:     Objection     Acceptance     Negotiation

Technician: \_\_\_\_\_ Supervisor: \_\_\_\_\_

Comments: \_\_\_\_\_

- 1. Name of Federal Agency: EPA
- 2. Federal Program Catalog Number: N/A
- 3. Type of Action:
  - Federal Activity     License or permit     Federal Assistance
- 4. Name of Applicant: Buckeye Caribbean Terminal, LLC (BCTL)
- 5. Postal Address: P.O. Box 186 Yabucoa, PR 00767-0186  
 Telephone: (787) 893-2424      Fax: (787) 893-3111
- 6. Project name: NPDES Permit No. PR0000400 Renewal for BCTL
- 7. Physical Description of Project Location (area, facilities such as vehicular access, drainage, storm and sanitary sewer placement, etc.): The facility is bounded to the north by the Santiago Creek, to the east by the Yabucoa Bay, to the west by the Yabucoa town, and to the south by road PR-9914.

2015 MAR 30 AM 9:44  
*[Signature]*  
Junta de Planificación  
Negocio, Planes de  
Usos de Terrenos

Lambert Coordinates:      X = 261,000 m      Y = 222,813 m

8. Type of construction or other work proposed:

- drainage       channeling       landfill       sand extraction  
 pier       bridge       residential       tourist

others (specify and explain) N/A

Description of proposed work: NPDES Permit No. PR0000400 Renewal for BCTL

---



---



---

9. Natural, artificial, historic or cultural systems likely to be affected by the project

Place an X opposite any of the systems indicated below that are in the project area or its surroundings, which are likely to be affected by that activity. Indicate the distance from the project to any outside system that would likely be affected.

System	Within Project	Outside Project	Distance (meters)	Local name of affected system
beach, dunes	N/A	N/A	N/A	N/A
marshes	N/A	N/A	N/A	N/A
coral, reefs	N/A	N/A	N/A	N/A
river, estuary	N/A	N/A	N/A	N/A
bird sanctuary	N/A	N/A	N/A	N/A
pond, lake, lagoon	N/A	N/A	N/A	N/A
agricultural unit	N/A	N/A	N/A	N/A
forest, wood	N/A	N/A	N/A	N/A
cliff, breakwater	N/A	N/A	N/A	N/A
cultural or tourist area	N/A	N/A	N/A	N/A
other (explain)	N/A	N/A	N/A	N/A

Describe the likely impact of the project on the identified system (s).

Positive

Negative

Explain: N/A

---



---



---

10. Indicate permits, approvals and endorsements of the proposal by Federal and Puerto Rican government agencies. Evidence of such support should be attached to the proposal.

	Yes	No	Pending	Application Number
a. Planning Board	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
b. Regulation and Permits Administration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
c. Environmental Quality Board	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
d. Department of Natural Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
e. State Historic Preservation Office	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
f. U.S. Army Corps of Engineers	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
g. U.S. Coast Guard	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	_____
h. Other (s) (specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>NPDES Permit Application</u> No. PR0000400

**CERTIFICATION**

I CERTIFY THAT (project name) NPDES Permit No. PR0000400 Renewal for BCTL is consistent with the Puerto Rico Coastal Zone Management Program, and that to the best of my knowledge the above information is true.

Carmelo Silva  
Name (legible)

  
Signature

HSSE Manager  
Position

03-18-15  
Date

## **Explanatory Memorandum**

Buckeye Caribbean Terminals, LLC Yabucoa, Puerto Rico

Coastal Zone Certification Request

Yabucoa, Puerto Rico

**Explanatory Memorandum**

On December 10, 2010 Buckeye Caribbean Holding Limited acquired from Shell Caribbean Investment Limited, all share of stocks of Shell Chemical Yabucoa, Inc. (a corporation organized under the Puerto Rico Corporations Law).

Buckeye Caribbean Terminals LLC (BCTL) operates a Petroleum Bulk Storage Terminal (PBST) complex at State Road 901 Km 2.7 Yabucoa Puerto Rico. As such, it leases fuel storage capacity and receives customer's imports of fuel components and finished fuel products for blending and sale of gasoline, diesel, jet fuel, kerosene and fuel oil for the Puerto Rico and regional markets. The facility also has the capacity to receive, load and store crude oil. Products handled at the PBST are typically received by marine vessels at the terminal's loading docks. A small volume of product is delivered to the PBST by cargo truck. The products are transferred via product piping from the marine vessels at the vessel dock or from cargo trucks to bulk storage aboveground tanks located within the terminal's tank farm. The PBST operates a tank farm, two docks (marine dock and barge dock), a truck loading rack and wastewater treatment units. The PBST has a total storage capacity of 4,624,863 bbls with an average storage volume of 2,857,178 bbls. The average daily throughput is around 70,000 bbl/day. The largest tank has a capacity of 315,000 bbl. The intent is for Buckeye to supply all of their customer products in Puerto Rico from the truck loading rack.

The marine dock operates 24 hours/day, 7days/week. The dock is equipped with one tanker dock, one barge dock and one tug dock. The tanker dock is equipped with eight (8) marine steel loading arms used to load and unload product from the marine vessels. The barge dock is equipped with two (2) steel loading arms used to load and unload product from marine barges. The product transfers are mainly made via the Tank Farm tanks to the Truck Loading rack, where the product is loaded into tank trucks for transportation. The loading rack used for gasoline has vacuum assisted vapor recovery. It can also be used to load heavier products such as diesel fuel, kerosene, jet fuel and fuel oils.

The refinery process units were shut down in July 2008. The units were de-inventoried, removing the entire product within them, decontaminated with nitrogen, steams and water preserved.

*Treated Discharges from Outfall 001*

Due to the overall layout of the facility and the distance between the closed refinery and the Tank Farm, about one mile apart there are two Wastewater Treatment Facilities (WWTFs); one is located in the

infiltration from Caño Santiago, as well as air conditioner water condensate contributes to discharge 002. Previously, there was a normally closed connection between the 3-cell separator and the FCP. This connection was capped off in August 2012. The intent of the connection was to protect life and equipment within the refinery area in case of major flooding. Since there are no operations within the refinery there is no need to prevent the flooding of the area.

**COASTAL ZONE**  
**Certification Request**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

JAN 15 2014

RECEIVED  
21 JAN 2014

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. Hans Rutzen  
Operations Director  
Buckeye Caribbean Terminals LLC  
P.O. Box 186  
Yabucoa, Puerto Rico 00767

Re: Coastal Zone Certification, NPDES Permit Application Number PR0000400

Dear Mr. Rutzen:

This letter is in regard to the National Pollutant Discharge Elimination System (NPDES) permit application for the following facility:

<u>NPDES Permit Number</u>	<u>Facility Name/Location</u>	<u>Applicant</u>
PR0000400	Buckeye Caribbean Terminals LLC / State Road No. 901, Km. 2.7 Yabucoa, Puerto Rico 00767	Buckeye Caribbean Terminals LLC

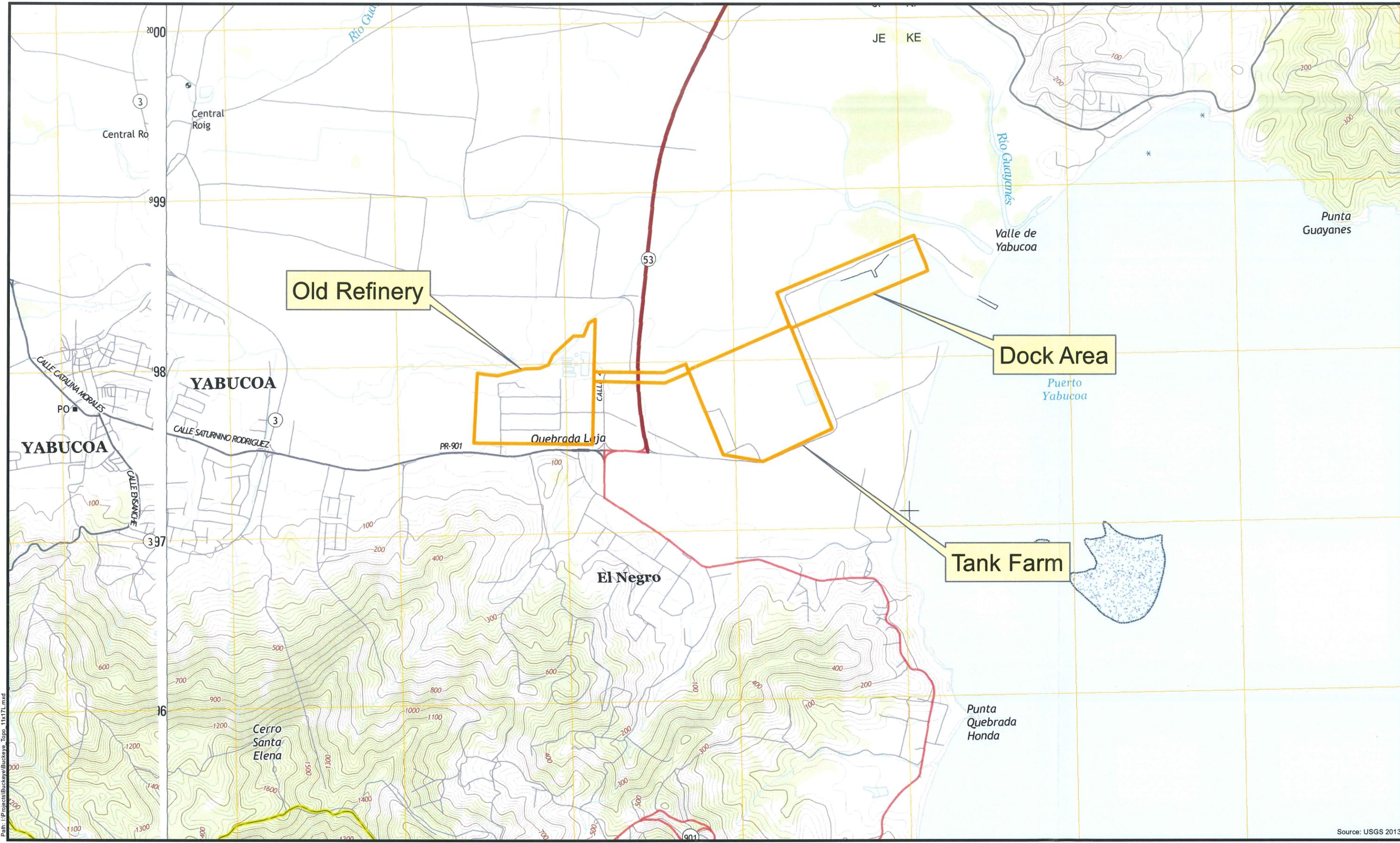
In accordance with 40 Code of Federal Regulations (CFR) §122.49, the Coastal Zone Management Act prohibits the Environmental Protection Agency from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (Commonwealth of Puerto Rico) Coastal Zone Management Program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

If you do not already have the required certification, please send whatever information is necessary, including a copy of your NPDES application, to the Puerto Rico Planning Board (PRPB) at the following address:

Coordinator  
Coastal Zone  
Puerto Rico Planning Board  
P.O. Box 41119  
San Juan, Puerto Rico 00940-9985  
Telephone: (787) 726-0289

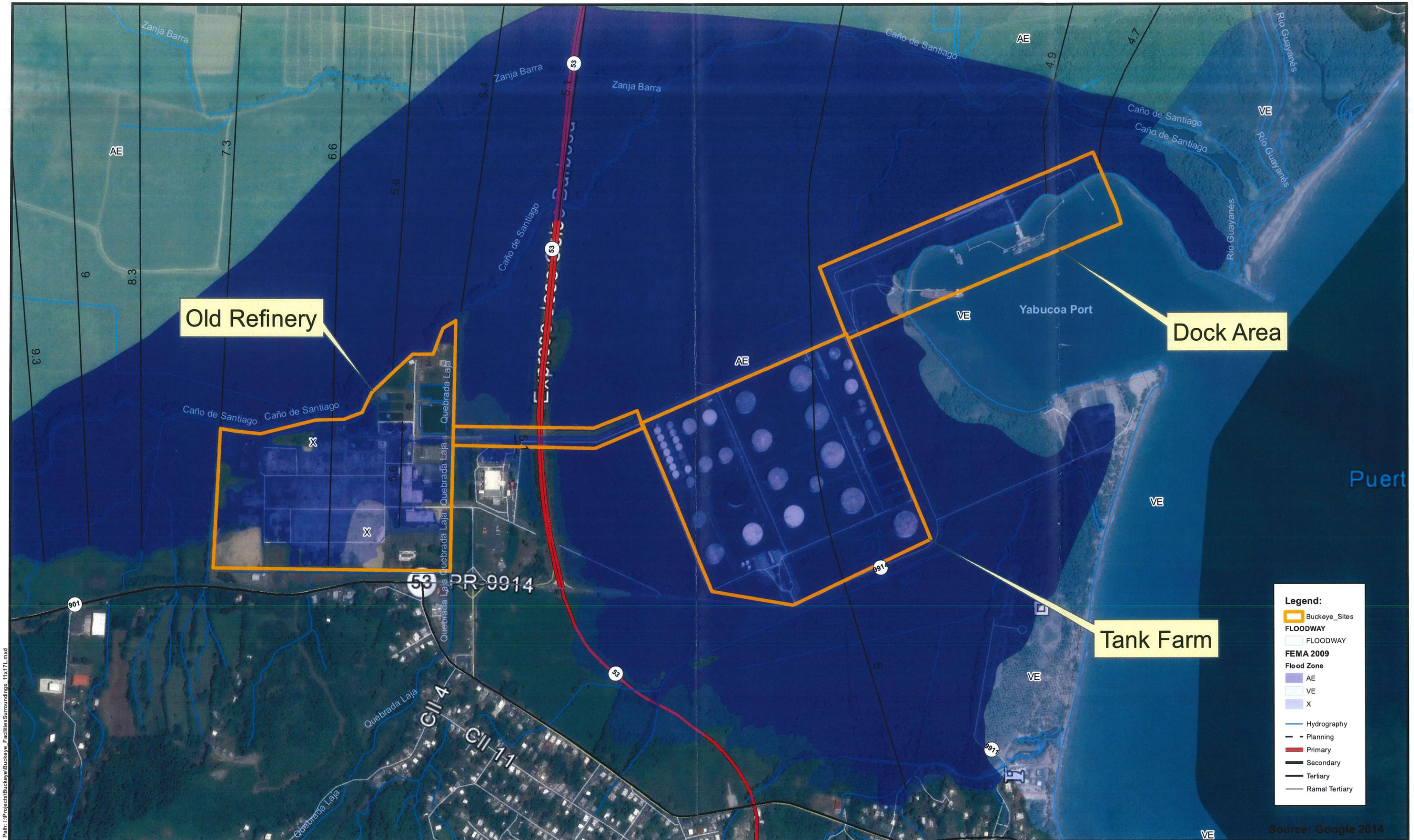
After receiving the certification, please send a copy to the undersigned. Finally, be aware that the PRPB has advised EPA that it will not provide coastal zone consistency certifications until after issuance of Water Quality Certificates (WQCs) from the Puerto Rico Environmental Quality Board (EQB). Therefore, please forward a copy of the final WQC to the PRPB.

## Topographic Map



Source: USGS 2013

**Aerial Picture of Buckeye Caribbean  
Terminal, LLC:  
Facilities and surroundings**



Old Refinery

Dock Area

Tank Farm

**Legend:**

- Buckeye\_Sites
- FLOODWAY**
- FLOODWAY
- FEMA 2009**
- Flood Zone**
- AE
- VE
- X
- Hydrography
- - - Planning
- Primary
- Secondary
- Tertiary
- Ramal Tertiary

Source: Google 2014

Path: I:\Projects\Buckeye\Buckeye\_FacilitiesSurroundings\_11x17L.mxd

**DRAFT**

**Water Quality Certificate  
and Response Letter**



COMMONWEALTH OF  
PUERTO RICO  
Environmental Quality Board

RETURN RECEIPT REQUESTED

August 21, 2014

Mr. Hans Rutzen  
Operations Director  
Buckeye Caribbean Terminal, LLC  
PO Box 186  
Yabucoa, Puerto Rico 00767

Dear Mr. Rutzen:

**RE: INTENT TO ISSUE A WATER QUALITY CERTIFICATE  
BUCKEYE CARIBBEAN TERMINAL, LLC  
STATE ROAD NO. 901, KM 2.7  
YABUCOA, PUERTO RICO  
NPDES NO. PR0000400**

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 discharges 001 and 002 of the referenced facility. We also have received and evaluated a request to obtain a Water Quality Certificate (WQC), submitted by Buckeye Caribbean Terminal, LLC (BCTL) in letter dated May 1, 2013, pursuant to Rule 1306.11 of the Puerto Rico Water Quality Standards Regulation (PRWQSR), as amended. In such letter, BCTL requested water quality standards at the end of the pipe as effluent limitations in the WQC.

Therefore, the Environmental Quality Board (EQB) prepared the draft WQC after due consideration of the applicable provisions established in the PRWQSR and in Sections 208 (e), 301, 302, 303, 304 (e), 306 and 307 of the Act, with water quality based effluent limitations. Copy of the draft WQC, Public Notice and Preliminary Determinations are enclosed.

It is required that the Spanish version of the aforementioned notice be published in a newspaper of general circulation in Puerto Rico for one (1) day, notifying the Board's intention to issue the WQC requested pursuant to the Act. Also, the petitioner must provide a publication affidavit from the newspaper in which such notice is published. The original of the affidavit shall be submitted to EQB prior to the end of the public participation period. The petitioner should contact Ms. Sara

PRELIMINARY DETERMINATIONS FOR  
WATER QUALITY CERTIFICATE

NPDES No. PR0000400

The Environmental Quality Board (EQB) has received from Buckeye Caribbean Terminal, LLC (BCTL) a request to obtain a Water Quality Certificate (WQC) with water quality standards at the end of the pipe as effluent limitations for the discharges of wastewaters and storm waters coming from the BCTL, located at State Road No. 901, Km 2.7, Yabucoa, Puerto Rico (P.O. Box 186, Yabucoa, Puerto Rico 00767). Also, BCTL has requested from the Environmental Protection Agency (EPA) a permit under the National Pollutant Discharge Elimination System (NPDES) for the referred discharges.

The applicant, BCTL, proposes to discharge 2,089.14 m<sup>3</sup>/day (0.5558 MGD) as daily maximum of wastewaters coming from its industrial operations, treated in their designated wastewater treatment systems prior to be discharged through discharge point 001 to Bahía de Yabucoa. Also, the applicant proposes to discharge waters composed of storm waters, air conditioner systems condensate and waters from firefighting drills through the discharge point 002 to Caño Santiago.

The receiving water bodies, Bahía de Yabucoa and Caño Santiago, are classified as SC and SD, respectively, by the Puerto Rico Water Quality Standards Regulation (PRWQSR), as amended.

After the corresponding evaluation of the NPDES permit renewal application, the WQC application, other available information, and the applicable provisions established in the PRWQSR and in Sections 208 (e), 301, 302, 303, 304 (e), 306 and 307 of the Federal Clean Water Act, as amended (33 U.S.C. 466 *et seq.*) (the Act); the EQB intends to issue a WQC, subject to compliance with all the conditions specified in Tables A-1 and A-2 which include water quality standards at the end of the pipe as effluent limitations. In this manner, EQB intends to certify that there is a reasonable assurance that the allowed discharges will not cause violations to the applicable water quality standards at the receiving water body.

The conditions specified in the aforementioned tables shall be incorporated into the NPDES permit in order to satisfy the provisions of Section 301 (b) (1) (C) of the Act.

## SPECIAL CONDITIONS

### NPDES NO. PR0000400

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 2,089.14 m<sup>3</sup>/day (0.5558 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 002 will consist of waters composed of storm water, air conditioner systems condensate and waters from firefighting drills.<sup>4</sup>
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.<sup>4</sup>
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.<sup>1,3</sup>
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.<sup>2,3</sup>
6. The waters of Puerto Rico shall not contain any substance attributable to discharges 001 and 002, 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>
7. The discharges 001 and 002 shall not cause the presence of oil sheen in the receiving water body.<sup>2</sup>
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.<sup>1,3</sup>

17. STORM WATER POLLUTION PREVENTION PLAN (SWPP PLAN)/BEST MANAGEMENT PRACTICES PLAN (BMP PLAN) <sup>4</sup>

- a. A copy of the most recent version of the approved SWPP Plan/BMP Plan shall be maintained at the facility and shall be available upon request.
- b. The SWPP Plan/BMP Plan shall be reviewed each five year and modified if necessary. A certification that the SWPP Plan/BMP Plan was reviewed shall be submitted not later than ninety (90) days after the Effective date of the NPDES Permit (EDP).
- c. Whenever changes occur at the facility that materially increase the potential for releases of pollutants or when situations occur that reflect that the plan is inadequate, the SWPP Plan/BMP Plan shall be modified to include preventive measurements in order to address those situations.
- d. If a modification of the SWPP Plan/BMP Plan is necessary, the permittee shall submit the modified SWPP Plan/BMP Plan to EQB for review and approval within ninety (90) days from the date when the Plan was revised or changes in the facility occurred. The modified SWPP Plan/BMP Plan shall be implemented within ninety (90) days after EQB's approval.

18. The permittee shall comply at all times with the provisions, measures or practices included in the most recent version of the SWPP Plan/BMP Plan (Special Condition 17) approved by EQB. <sup>4</sup>

19. WHEN FLOW OCCURS (WFO) <sup>4</sup>

WFO - For our purposes means when flow occurs through discharge point 002 during normal business hours of the facility, but not more often than one rainfall runoff sampling per month.

a. First Half of Month

During the first fifteen (15) days of the month, sampling shall be as follows: A minimum period of 48 hours without measurable precipitation (measurable precipitation being rainfall greater than 0.1 inch) shall precede the storm event to be sampled. For those parameters which require grab samples, the sample shall be taken during the first thirty (30) minutes of storm water discharge.

- 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 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 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.
  - 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 Administrator of EPA or the EQB can require additional toxicity tests, including chronic tests and toxicity/treatability studies, and may impose toxicity limitations.
23. The solid wastes such as sludge, screenings and grit, generated due to the operation of the treatment systems 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.

26. The EQB, by the issuance of this WQC, does not relieve the applicant from its responsibility to obtain additional permits or authorizations from the 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. <sup>4</sup>

1, 2, 3, 4 and 5 see next page

TABLE A-1

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

NPDES NO. PR0000400

During the period beginning on the EDP and lasting through the EDP + 5 years, the permittee is authorized to discharge from outfall serial number 001 treated wastewaters coming from its industrial operations <sup>(B)</sup>. Such discharge shall be limited and monitored by the permittee as specified below:

Receiving Water Name and Classification: Bahía de Yabucoa, SC

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
2,4,6-Trichlorophenol (µg/L) <sup>2,3</sup>	----	----	α	Grab
2,4-Dichlorophenol (µg/L) <sup>2,3</sup>	----	----	α	Grab
2-Chlorophenol (µg/L) <sup>2,3</sup>	----	----	α	Grab
2-Methyl-4,6-Dinitrophenol (µg/L) <sup>2,3</sup>	----	----	α	Grab
Benzo (a) Anthracene (µg/L) <sup>2,3</sup>	----	----	α	Grab
Benzo (a) Pyrene (µg/L) <sup>2,3</sup>	----	----	α	Grab
Benzo (k) Fluoranthene (µg/L) <sup>2,3</sup>	----	----	α	Grab
BOD <sub>5</sub> (mg/L) <sup>1,2,3</sup>	30.0		Monthly	Composite
Chromium VI (Cr <sup>6+</sup> ) (µg/L) <sup>2,3</sup>		50.35	λ	Grab
Color (Pt-Co Units) <sup>2,3</sup>		Shall not be altered except by other than natural causes.	Monthly	Grab
Copper (Cu) (µg/L) <sup>2,3</sup>		3.73	Monthly	Grab

TABLE A-1

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

NPDES NO. PR0000400

Receiving Water Name and Classification: Bahía de Yabucoa, SC

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Nickel (Ni) ( $\mu\text{g/L}$ ) <sup>2,3</sup>		8.28	$\lambda$	Grab
Nitrogen ( $\text{NO}_3$ , $\text{NO}_2$ , $\text{NH}_3$ ) ( $\mu\text{g/L}$ ) <sup>2,3</sup>		5,000	Monthly	Grab
Oil and Grease ( $\text{mg/L}$ ) <sup>2,3</sup>	The water of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum derived oils and greases.			
Pentachlorophenol ( $\mu\text{g/L}$ ) <sup>2,3</sup>		----	$\alpha$	Grab
pH (SU) <sup>2,3</sup>	Shall always lie between 7.3 and 8.5.			
Residual Chlorine ( $\text{mg/L}$ ) $\gamma$ <sup>2,3</sup>		0.50	Daily	Grab
Silver (Ag) ( $\mu\text{g/L}$ ) <sup>2,3</sup>		2.24	Quarterly	Grab
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.			
Sulfide (Undissociated $\text{H}_2\text{S}$ ) ( $\mu\text{g/L}$ ) $\delta$ <sup>2,3</sup>		2	Monthly	Grab

Receiving Water Name and Classification: Bahía de Yabucoa, SC

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 of plus or minus ( $\pm$ ) 10%.

$\gamma$  See Special Conditions 5 and 6.

$\phi$  See Special Condition 9.

$\delta$  See Special Condition 10.

$\beta$  Wastewaters coming from the following industrial operations:

- firefighting drills
- pavements washwaters
- storm waters from refinery
- refinery demolition washwaters
- laboratory discharges
- domestic use
- storm waters from OLEIN
- dock's storm waters
- air conditioner systems condensate
- tanks secondary containment drains

$\alpha$  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 no 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 (1) 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.

TABLE A-2

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

NPDES NO. PR0000400

During the period beginning on the EDP and lasting through the EDP + 5 years, the permittee is authorized to discharge from outfall serial number 002 waters composed of storm water, air conditioner systems condensate and waters from firefighting drills. Such discharge shall be limited and monitored by the permittee as specified below:

Receiving Water Name and Classification: Caño Santiago, SD

<u>Effluent Characteristics</u>	<u>Gross Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	Monthly Average	Daily Maximum	Measurements Frequency	Sample Type
Color (Pt-Co Units) <sup>2,3</sup>		15	WFO	Grab
Dissolved Oxygen (mg/L) <sup>1,2,3</sup>	Shall not be less than 5.0.		WFO	Grab
Flow m <sup>3</sup> /day (MGD) <sup>1,3,4</sup>		N/A	WFO	Measured
Oil and Grease (mg/L) <sup>2,3</sup>	The waters of Puerto Rico shall be substantially free from floating non-petroleum oils and greases as well as petroleum derived oils and greases.			
pH (SU) <sup>2,3</sup>	Shall always lie between 6.0 and 9.0.			
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.			

October 24, 2014

**BY CERTIFIED MAIL – RETURN RECEIPT**  
**REQUESTED NO. 7014-1200-0001-1005-5836**

Eng. Wanda E. García Hernández  
Director, Water Quality Area  
Puerto Rico Environmental Quality Board  
P.O. Box 11488  
San Juan, Puerto Rico 00910

**Re: Buckeye Caribbean Terminals, LLC**  
**Comments to the Draft Water Quality Certificate**

Dear Ms. García Hernández:

Buckeye Caribbean Terminals, LLC (“BCT”), formerly Shell Chemical Yabucoa, Inc., respectfully submit the comments to the Draft Water Quality Certificate (“Draft WQC”) issued for public comment by the Puerto Rico Environmental Quality Board (“EQB”) on August 27, 2014. BCT’s comments were originally due on or before September 26, 2014, but the EQB granted BCT a thirty (30) day extension of time to provide its comments.<sup>1</sup> As fully explained below, BCT considered the proposed parameters included in the Draft WQC and evaluated them with relation to the stormwater discharges of the current operation of its Petroleum Bulk Storage Terminal complex (the “Facility”) and as compared to the discharges that existed during the Facility’s former operation as a refinery prior to its permanent closing in July 2008.

Based on its evaluation, and in conformity with the provisions of Rule 1306.11 of the EQB’s Water Quality Standards Regulation of August 21, 2014, (Department of State Regulation No. 8512), BCT hereby includes its comments to the Draft WQC and proposes effluent limitations for the following six (6) analytes (parameters): (i) copper; (ii) mercury; (iii) nickel; (iv) pH for Outfall No. 001; (v) color on Outfall No. 002; and, (vi) turbidity on Outfall No. 001 (the “Six Parameters”). In addition, BCT respectfully request a meeting with EQB – prior to it reaching any final decision - to discuss the methodology and rationale for its analysis and facilitate EQB’s consideration of BCT’s proposed revisions to the Six Parameters.

---

<sup>1</sup> See, Letter from EQB dated September 24, 2014, granting the thirty (30) day extension attached herein as **Exhibit 1**.

pipeline.<sup>5</sup> The ACO also authorized the discharge of uncontaminated stormwater through Outfall No. 002 into the Santiago Creek. It also adopted the same effluent limitations, monitoring requirements, special and general conditions of the Facility's former NPDES permit.<sup>6</sup> It further required BCT to submit a complete and accurate NPDES permit application for all its discharges of pollutants through point sources into waters of the United States.<sup>7</sup>

In compliance with the ACO, BCT filed an NPDES permit application with USEPA in May 2011. The NPDES permit application filed is for the discharges of contact and non-contact stormwater through Outfall No. 001 and Outfall No. 002. Presently, BCT continues to discharge its stormwaters through Outfalls 001 and 002 in general compliance with the terms of the ACO and the effluent limitations established under the Facility's former NPDES permit. Outfall No. 001 combines treated stormwaters and the effluent from the Wastewater Treatment Plant to be discharged to the Yabucoa Bay. Outfall No. 002 combines the stormwater runoff from the Facility's Flood Control Pond, the water infiltration from the Lajas Creek/Caño Santiago, and the air conditioner water condensates. Although the refinery has not been in operation since 2008, BCT continues to treat and discharge its stormwater in the same manner and through the same infrastructure used during the former operation. It also continues to have the same sampling point, the same equipment, the same water receiving system, and the same discharge diffuser – at the end of the pipeline of Outfall No. 001 - as when the Facility was operating the refinery.

After multiple communication exchanges, USEPA issued a notice of completeness for the NPDES permit application in January 2014. In August 2014, EQB issued a Draft WQC with assigned effluent limitations for Outfalls 001 and 002. On August 27, 2014, EQB issued the Draft WQC with assigned effluent limitations for Outfalls 001 and 002 and, following the issuance of the public notice, BCT requested additional time to comment. Accordingly, and within the time extension provided, BCT respectfully provides the following comments to the Draft WQC.

### **Discussion**

In accordance with Rule 1306.11 of the Water Quality Standards Regulation, an applicant requesting the issuance of a Water Quality Certificate is to submit a “a characterization of the effluent, the receiving water body and the limits which the petitioner requests be applicable to the effluent, together with a detailed analysis of the method(s) used to translate the water quality standards into effluent limitations and the justification for their use.” It must also demonstrate that the effluent limits requested will not violate the water quality standards at the receiving water body, taking into account, between others, the procedures of waste load allocation or “any

---

<sup>5</sup> See, ACO at Article III, Paragraph 14.

<sup>6</sup> *Id.* at Article V, Paragraph 3.

<sup>7</sup> *Id.* at Article V, Paragraph 5.

samples taken for the Benthic Study were at, or just above the method reporting limit.<sup>13</sup> Most of the metals sediment results suggest that the concentration of most metals in the near-field sediments are similar to background levels.<sup>14</sup> In fact, the Benthic Study concluded that there were “no apparent differences between outfall stations and reference stations that [were] sufficient to support an argument that [the Facility] discharge has had an impact on the benthic community.”

Moreover, mass loadings for copper, mercury, and nickel discharged by BCT during 2012 and 2013 are considerably lower than loadings discharged in 2005 and 2006 during the operation of the refinery.<sup>15</sup> Notwithstanding, the Draft WQC includes stricter limitations for these three metals, even when the DMRs show that the discharges at the time when the refinery was in operation in 2005 and 2006 did not have a negative impact on the receiving bodies of water or its uses. Also, while the DMRs for 2012 and 2013 show consistent compliance with the pH lower limit and upper limit currently applicable to the Facility (6.0 - 9.0, respectively), the Draft WQC narrows pH range limits to 7.3- 8.5 without justifying the need for the stricter limit.<sup>16</sup>

Also, BCT notes that the color limit for discharge at Outfall No. 002 should be the same as the limit proposed for the discharge at Outfall No. 001. The Draft WQC requires that the color of the discharge from Outfall No. 001 may not be altered other than by natural causes. The color content in the effluent from Outfall No. 002 is a result of the vegetation that has fallen from the trees surrounding the flood control pond and from natural algae growth which would cause exceedances in the proposed effluent color content, but are due to natural causes. Such exceedances in color content are unavoidably higher than the proposed limit of 15 color units.

EQB must also note that neither the ACO nor the NPDES permit that was in effect during the operation of the refinery imposed a discharge limitation for turbidity at either Outfall No.001 or Outfall No. 002. Instead, they only required monitoring of turbidity at Outfall No. 002. However, the Draft WQC imposed a limitation of 10 Nephelometric Turbidity Units (“NTU”) at Outfall No. 001 and 50 NTUs for the discharge at Outfall No. 002. Although BCT understands EQB’s intent to impose a limitation on turbidity, considering that the ACO and the former NPDES permit for the Facility did not establish any requirements for Outfall No. 001, which discharges into the Yabucoa Bay, BCT sees no reason for imposing such a strict limit at Outfall No. 001 when BCT understands that there are no scientific basis to support such limit. Notwithstanding the foregoing, BCT proposes that the same limit imposed for Outfall No. 002 (50 NTUs) be imposed for Outfall No. 001 which seems to be a more reasonable limit;

---

<sup>13</sup> See, **Exhibit 3** (Benthic Study).

<sup>14</sup> See, **Exhibit 3** (Benthic Study).

<sup>15</sup> See, **Figures Nos. 1-3**.

<sup>16</sup> See, **Figure No. 4**.

operation pursuant to the ACO. However, the Draft WQC imposes a compliance limit of 8.28 µg/l. Figure No. 3 shows the nickel mass loadings for the Facility's discharges in 2005 and 2006 when the refinery was in operation compared to the Facility's discharges in 2012 and 2013 when all refinery operations had ceased. Figure 3 also shows the NPDES effluent limitation and Draft WQC limit converted to allowable mass loadings.

Moreover, Table No. 2 in Section 3.1.4 of the Benthic Study for nickel, shows that the far field and reference stations results are very similar, evidencing that the nickel concentrations originated during the Facility's operation as a refinery were similar to background levels.<sup>21</sup> Since the nickel discharges from BCT are much less now than those produced during the operation of the refinery, undoubtedly, their content will also be significantly less than the background values.

4. **pH** - The Draft WQC would require compliance with a lower level pH limit (7.3) approximately 22% higher than that currently required under the ACO and the previous NPDES permit (6.0), and a higher level pH limit (8.5) approximately 6% lower than the current limit (9.0). Figure No. 4 shows the pH results for the former and current discharges during the mentioned reporting periods. The figure reflects quite similar results for both facilities over different time periods. BCT would not be able to meet the pH limit during the dry season if the proposed new limits are established. BCT sees no reason why such stricter lower pH requirement is necessary, particularly when the receiving water system is the Yabucoa Bay where its depth, currents, temperature, salinity, and other parameters have a direct influence over the pH content. Further, the Benthic Study does not attribute any harmful effect on the bay's environmental conditions originated by BCT's discharges' pH content. On the contrary, the study concludes that any damage to the bay's macrobenthic population near the Outfall is due to external factors not related to BCT's discharges. Considering that BCT's current flow is significantly less than that of its former operation, in addition to the dilution provided by the bay serves as a natural neutralization agent, the current discharges' quality will not be detrimental to the water receiving body.
5. **Color** - A Color limit of 15 Pt. color units was proposed in the Draft WQC for the discharges originated at Outfall No. 002. BCT has originated discharges at such Outfall which have exceeded the Draft WQC's level. However, values over the 15 color units limit is attributed to natural conditions. Outfall No. 002 collects overflowing discharges from the flood control retention pond, which is surrounded by trees, shrubs, and other vegetation, with falling leaves and vegetation continuously in contact with the stormwater in the pond. The

---

<sup>21</sup> See, **Exhibit 3** (Benthic Study).

Parameter	EQB Draft WQC Limit	Current Limits	Proposed Limits
Color	15 Pt. Color Units	Not authorized for other than natural causes	Not authorized for other than natural causes
Turbidity	10 (Outfall No. 001) 50 (Outfall No. 002)	None	50 for both outfalls

The BCT proposed copper and mercury limits were calculated from the BCT discharge data generated during 2012 and 2013. The BCT proposed limit is the highest concentration produced by BCT for copper and mercury and shows a mass loading well below the loading produced during the Facility's former operation. BCT proposes nickel as a monitor only limit as is currently under the ACO and which has been shown through the Benthic Study, originated during the Facility's operation as a refinery, to be similar to background levels.<sup>22</sup> For pH, BCT does not see the need for a stricter pH limit for Outfall No. 001, particularly when the receiving water is the Yabucoa Bay where its depth, currents, temperature, salinity, and other parameters have a direct influence over the pH content and when the Benthic Study does not attribute any harmful effects on the bay from BCT discharge pH range. Therefore, BCT requests the limit to be revised back to the current limit (6.0 – 9.0). Regarding Color, the Draft WQC authorizes a discharge at Outfall No. 001 with a color content only attributed to natural conditions. This should be the same for Outfall No. 002 since color can result from natural causes such as vegetation and algal growth. For turbidity, BCT proposes that the same limit imposed for Outfall No. 002 (50 NTUs) be imposed for Outfall No. 001 which seems to be a more reasonable limit considering that no impacts to the Cariban Sea or any of the benthic communities associated with turbidity have been found or recorded.

**Conclusion**

Based on the foregoing, it is clear that the receiving body (Caribbean Sea/Yabucoa Bay) is not being negatively impacted by the current effluent discharge. In fact, the Benthic Study confirms with scientific certainty that the receiving body was not impacted by the effluent discharge from the Facility during the operation of the refinery in 2005 and 2006 (“there has been no evidence of unreasonable degradation of the marine environment caused by the [Facility’s] discharge”)<sup>23</sup>.

In fact, the Benthic Study goes even further by concluding that “there are no threats to human health through direct exposure to pollutants in the discharge or through consumption of

<sup>22</sup> See, **Exhibit 3** (Benthic Study).

<sup>23</sup> See, **Exhibit 3** (Benthic Study) at page 36.

**FIGURES**

FIGURE NO. 2

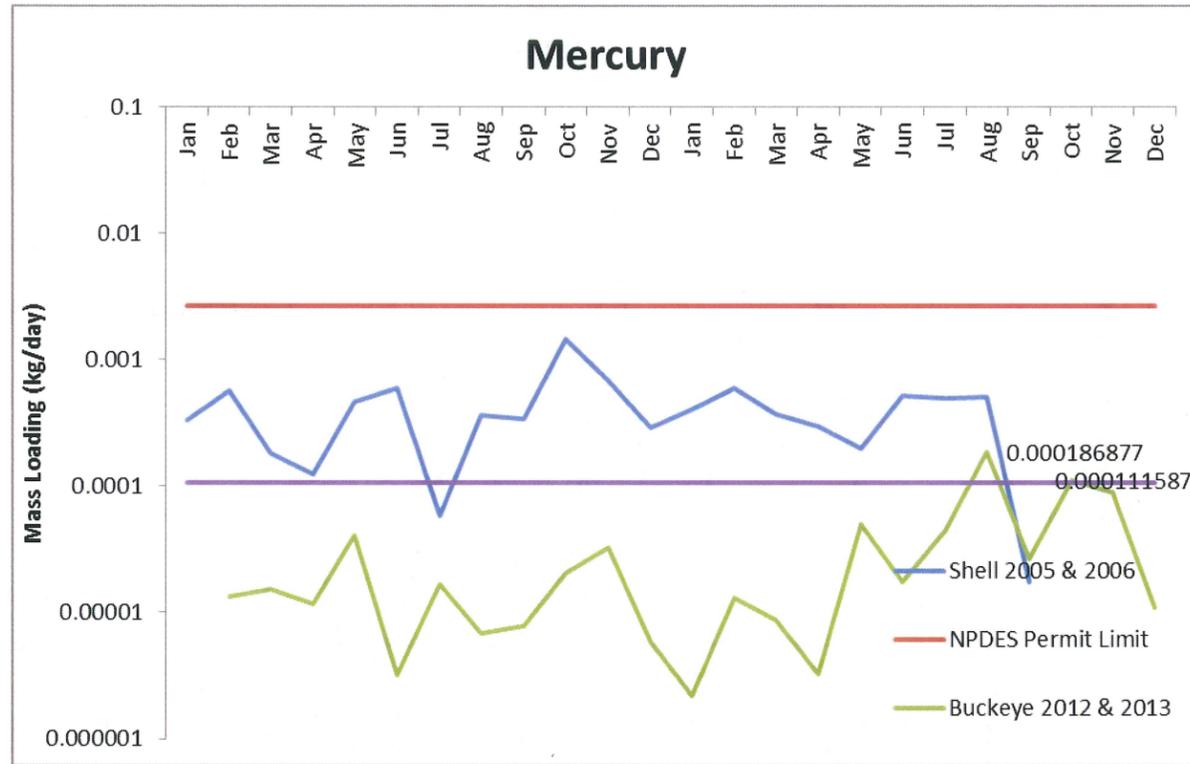
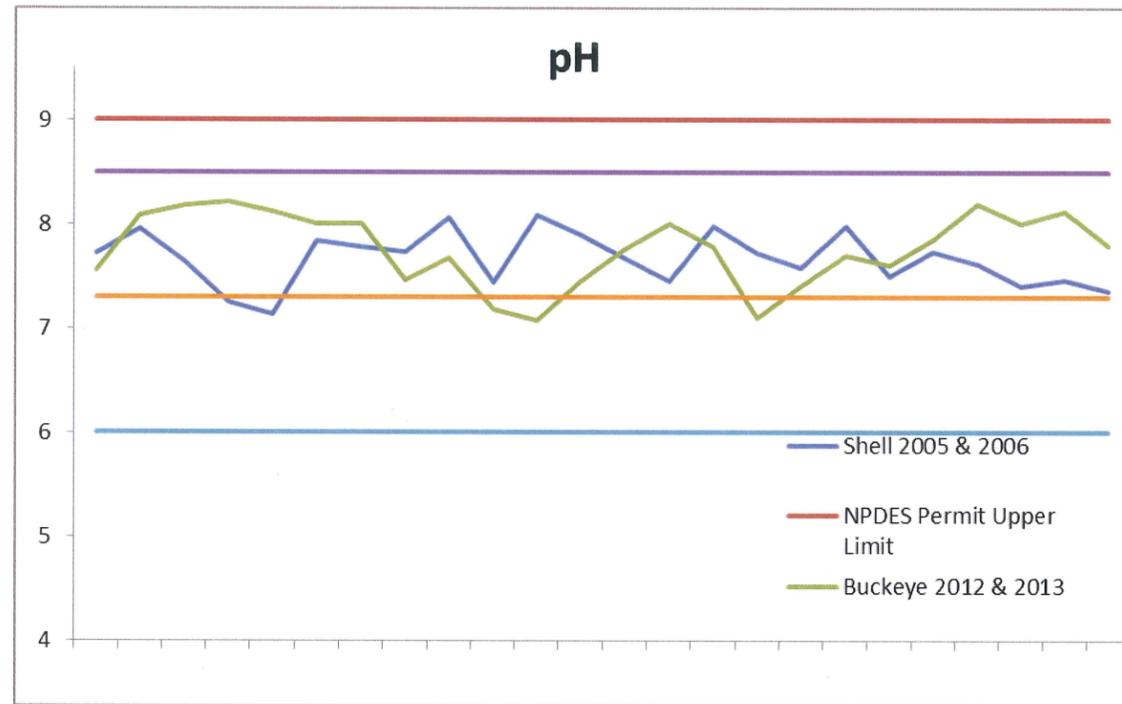


FIGURE NO. 4



**Notice of Completeness  
Request for Information**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Hans Rutzen  
Operations Director  
Buckeye Caribbean Terminals LLC  
P.O. Box 186  
Yabucoa, Puerto Rico 00767

Re: Notice of Completeness and Request for Additional Information, NPDES Permit  
Application No. PR0000400

Dear Mr. Rutzen:

This notice is being sent in accordance with 40 Code of Federal Regulations (CFR) §124.3 to inform you that the application for a National Pollutant Discharge Elimination System (NPDES) permit for Outfalls 001 and 002 submitted under cover letter dated September 20, 2012 with revised application pages/documents (Attachment list and Attachments 1, 2, 4, 5, 6, 8, 9 and 10) submitted under June 19, 2013 cover letter for the following facility has been reviewed for completeness and is complete.

<u>NPDES Permit No.</u>	<u>Facility Name</u>
PR0000400	Buckeye Caribbean Terminals LLC

This notice is also being sent in accordance with 40 CFR §124.3 to inform you that the U.S. Environmental Protection Agency (EPA) has found that **additional information is necessary** to supplement the submitted application for the NPDES permit for the above facility. I am requesting that you submit the information indicated in the enclosure no later than thirty (30) days from the date of receipt of this letter. The EPA is authorized to request additional information from you to clarify, modify or supplement previously submitted material in processing your permit application. This request will not render your application incomplete.

Enclosure

Application: Application Form 1, Form 2C (Outfall 001) and Form 2F (Outfalls 001 and 002) for the Buckeye Caribbean Terminals LLC facility with NPDES Permit Number PR0000400, submitted under cover letter dated September 20, 2012 with revised application pages/documents (Attachment list and Attachments 1, 2, 4, 5, 6, 8, 9 and 10) submitted under June 19, 2013 cover letter

Please respond to the request for additional information below concerning the above referenced application form(s) and submit revised insert pages to provide the information required. Provide a clear explanation of which pages, attachments, etc. are being revised.

1. VII.C – The Form 2F, Item VII.C requires “CAS Number (if available)”. For Outfall 001, provide updated pollutant names and CAS number as follows:
  - a. Cresol - The original May 19, 2011 NPDES permit application provided the following CAS numbers for the combined Meta and Para isomers of cresol and left blank the Ortho isomer:

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
59-50-7	<0.2 ug/l	<0.2 ug/l Note 1			1.00	m cresol (Note 2)
	<0.2 ug/l	<0.2 ug/l Note 1			1.00	mp cresol (Note 2)

EPA’s deficiency letter commented that the CAS numbers appear incorrect: m cresol isomer should be 108-39-4 instead of 59-50-7; p-cresol isomer should be 106-44-5 instead of 59-50-7.

The revised September 20, 2012 application provided the following CAS numbers:

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
95-46-7	<0.2 ug/l	<0.2 ug/l Note 1			1.00	p cresol (Note 2)
59-50-7	<0.2 ug/l	<0.2 ug/l Note 1			1.00	mp cresol (Note 2)

EPA’s letter then provided the following comment: A CAS # of 59-50-7 is reported for “mp cresol”. This value corresponds to the chemical name m-cresol. Also, EPA could not find either “m-cresol” or “mp cresol” in Form 2F, Table 2F-2, 2F-3 or 2F-4. The name “mp cresol” must be revised to show the same name and spelling as shown in the applicable Form 2F, Table 2F-2, 2F-3 or 2F-4.

EPA's letter provided the following comment: A CAS # of 74-90-8 is reported for "cyanide". This value corresponds to the chemical name hydrogen cyanide;

The revised application insert page under May 19, 2013 letter has kept the same CAS number but changed the pollutant name from "cyanide" to "hydrogen cyanide":

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
74-90-8	0.012 mg/l	0.010 mg/l Note 1			1.00	hydrogen cyanide (Note 2)

The instructions require reporting for "cyanide, total" since it is shown in Table F-3 of the application instructions not "hydrogen cyanide". The pollutant name must be changed back to "cyanide" or preferably "cyanide, total". Also, there is no CAS number for "cyanide, total" but there is for the cyanide (CN) ion, which is what comprises the Total CN result: 57-12-5. The application (and laboratory) should use this CAS number when reporting.

- c. Xylene - The original May 19, 2011 NPDES permit application left blank the CAS numbers for the Meta and Para isomer pair for xylene and for the Ortho isomer:

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
	<0.5 µg/l	Note 1			1.00	mp xylene (Note 2)
	<0.2 µg/l	Note 1			1.00	o xylene (Note 2)

EPA did not comment on leaving these CAS numbers blank. However, the revised September 20, 2012 application provided the following CAS numbers:

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.						
Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
100-30-3	<0.5 µg/l	<0.5 µg/l Note 1			1.00	mp xylene (Note 2)
95-47-6	<0.2 µg/l	<0.2 µg/l Note 1			1.00	o xylene (Note 2)

EPA's letter then provided the following comment: A CAS number of 108-38-3 is reported for "mp xylene". This value corresponds to the chemical name m-xylene. Also, EPA could not find either "m-xylene" or "mp xylene" in Form 2F, Table 2F-2, 2F-3 or 2F-4. The name "mp xylene" must be revised to show the same name and spelling as shown in the applicable Form 2F, Table 2F-2, 2F-3 or 2F-4.

**NPDES Permit Application**

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
110000580915

Form Approved.  
OMB No. 2040-0086.  
Approval expires 3-31-98.

Please print or type in the unshaded areas only.

FORM 2C NPDES		EPA		U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS Consolidated Permits Program			
<b>I. OUTFALL LOCATION</b>							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	18.00	3.00	1.00	65.00	49.00	21.00	Yabucoa Bay
<b>II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES</b>							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT				
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION			b. LIST CODES FROM TABLE 2C-1	
001			From previous page: 3 cell and 2 cell pretreatment				
			Activated Sludge Water Treatment:				
			2 Equalization tanks @ 90 ft diameter each 0.06 MGD Capacity 57.1 h retention time			3-B	
			2 Activated Sludge Aeration Basins 255 ft L 80ft W per basin 0.60 MGD 61 h RT			3-A	
			Clarifier 80 ft diameter 1.19 MGD 7.6 h RT			1-H	
			Sludge Management:				
			Aerobic Digestion Basin 280 ft L 85 W @ 200 gpm 5 days solids retention time			5-A	
			Sludge Drying Beds			5-H	
			Solids from Beds Offsite Landfill			5-Q	
			Discharge for Fire Basin:				
			Fire Water Basin 265 ft L 185 W 129 MGD 66.2 h RT			1-H	
001	Sanitary Treatment:		DAVCO Package Activated Sludge System:				
	Plant Administrative Buildings	0.0200 MGD	Grinding and Communication			1-L	
	Septic Tank	0.0043 MGD	Activated sludge with clarifier, Digestion and Disinfection 28 ft L 11 ft W 0.02 MGD			3-A	2-F
001			Solids from digester sent to Sludge Drying Beds (previous page)			5-H	
			Discharge to Fire Basin (described in previous page)				
	Lajas Cr/Cano Santiago Infiltration	0.0014000 MGD					
	Oil and storm runoff site contribution	0.000400 MGD	API Separator and WEMCO Unit			1-M	
001	Storm runoff from Dock and Tank Farm	0.360000 MGD	API Separator and WEMCO Unit			1-M	
	Fire drill waters	0.000160 MGD	API Separator and WEMCO Unit			1-M	
	Fire hydrants flushings	0.000100 MGD	API Separator and WEMCO Unit			1-H	
	Air conditioner condensates	0.000006 MGD	API Separator and WEMCO Unit			1-H	
OFFICIAL USE ONLY (effluent guidelines sub-categories)							

EPA I.D. NUMBER (copy from Item 1 of Form 1)  
110000580915

Form Approved.  
OMB No. 2040-0086.  
Approval expires 3-31-98.

Please print or type in the unshaded areas only.

FORM <b>2C</b> NPDES				U.S. ENVIRONMENTAL PROTECTION AGENCY APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS <i>Consolidated Permits Program</i>			
<b>I. OUTFALL LOCATION</b>							
For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.							
A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	18.00	3.00	1.00	65.00	49.00	21.00	Yabucoa Bay
<b>II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES</b>							
A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.							
B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.							
1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT				
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION		b. LIST CODES FROM TABLE 2C-1		
001	Tanks Drains	0.00001 MGD	3-Cell Separator Unit		1-M		
	Tank Drains	0.000005 MGD	2-Cell Unit 75 ft L 35 ft W @ 0.4 kgpd 11.8 h RT		1-M		
	Laboratory Washwaters	0.000005 MGD	2-Cell Unit 75 ft L 35 ft W @ 0.4 kgpd 11.8 h RT		1-M		
001	Future Demolition Washwaters	0.005000 MGD	2-Cell Unit 75 ft L 35 ft W @ 0.4 kgpd 11.8 h RT		1-M		
	(these waters are not currently discharged but the parameters believe present are already considered in the application)						
001	Storm water runoff from contact area of former refinery.	0.098000 MGD	3 Cell Separator Unit		1-M		
	Flood Control Pond Runoff sent for biological treatment.	0.058000 MGD	2 Equalization Tanks @90 ft diameter each 0.06 MGD Capacity 57.1 h retention units		1-B		
001	Pavement washwaters.	0.006600 MGD	3 Cell Separator Unit		1-M		
	Firefighting Drills.	0.000160 MGD	3 Cell Separator Unit		1-M		
001	Demolition washwaters		3 Cell Separator Unit		1-M		
	(this is a future discharge. The parameters believed present are parameters consires in the applicati						
OFFICIAL USE ONLY (effluent guidelines sub-categories)							



Continued from the Front

**IV. Narrative Description of Pollutant Sources**

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
001	15.9 acres (contact area)	19.9 acres	001	18.4 acres (tank farm)	110 acres

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Significant materials stored include crude oil, no. 6 fuel oil, regular and premium gasoline, jet fuel, ultra low sulfur diesel, gasoline components and additives. Treatment of contact runoff of the closed refinery are pretreated on a three cell API separator, followed by biological treatment and discharged to an effluent basin. Runoff from the Tank Farm areas is pretreated by two API separators followed by an Induced Air Flotation (IAF) unit. The effluent is pumped to a Ballast Basin and transfer to a Fire Basin until discharged in the outfall basin. Material Management practices employed to minimized product contact with runoff are: (1)Secondary containments structures on storages tanks, vessels and drums (2)Use of shelters structures to storage all warehouse chemicals and lubricants (3)Dedicated automatic chemical injection system facilities (4)Implementation of Storage Tanks Integrity Inspections (6)Implementation of Tanks level alarms testing (7)Implementation of a SWPPP (Attachment 10 Section 5.0) Materials Loading and Access areas are located at the refinery Warehouse, Truck Loading Rack and RCRA solid waste storage building. Only herbicides are applied at a frequency of 3 months at perimeter fence, tanks and docks pipe rack, main substation yard and around basins using spraying method on sunny days, and per manufacturer recommendation by a licensed technician.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
001	Dike areas at tank farm. Two API separators followed by a IAF unit. Implementation of a SWPPP (Attachment 10 Section 5.0). Sampling and laboratory test internal and external. Contact areas: 3 Cell API Separator, Equalization, Active Sludge, Clarifier, Effluent Basin. More details on Outfall 001 Form 2C (Attachment 4) and Attachment 8. The schedule and type of maintenance is describe on SWPPP (see Attachment 10, Section 5.0) as part of the Operation and Maintenance Inspections. Solid waste coming from the waste water treatment is pumped to drying beds and mechanically loaded to containers for offsite disposal.	1-M, 1-H, 3-A, 5-A, 5-Q

**V. Nonstormwater Discharges**

A. I certify under penalty of law hat the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
Hans Rutzen, Operations Director		

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

A visual inspection was conducted in 2008 by Eng. Robert Beato and found no dry weather discharges. A similiar inspection was conducted in 2012 and found no dry weather discharges occurring via visual inspection. (Refer to Attachment 16 for visual inspection certiiion)

**VI. Significant Leaks or Spills**

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

No significant leaks in the past three years.

**VII. Discharge Information**

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.  
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?  
 Yes (list all such pollutants below)  No (go to Section IX)

**VIII. Biological Toxicity Testing Data**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?  
 Yes (list all such pollutants below)  No (go to Section IX)

**IX. Contract Analysis Information**

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)  No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Environmental Quality Laboratories	PO Box 11485 San Juan PR 00910-1485	(787) 288-2840	All parameters on this application

**X. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (Type Or Print) Hans Rutzen, Operations Director	B. Area Code and Phone No. (787) 893-2424
C. Signature	D. Date Signed



Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
56-55-3	<0.2 ug/l	<0.2 ug/l Note 1			1.00	benzo(a)anthracene (Note 2)
207-08-9	<0.2 ug/l	<0.2 ug/l Note 1			1.00	benzofluoroanthene (Note2)
53-70-3	<0.3 ug/l	<0.2 ug/l Note 1			1.00	dibenzofluorantracene (Note 2)
51-28-5	<1.2 ug/l	<1.2 ug/l Note 1			1.00	2, 4 dinitrofenol (Note 2)
91-20-3	<0.2 ug/l	<0.3 ug/l Note 1			1.00	naphthalene (Note 2)
98-95-3	<0.2 ug/l	<0.2 ug/l Note 1			1.00	nitrobenzene (Note 2)
88-75-5	<0.2 ug/l	<0.2 ug/l Note 1			1.00	2 nitrofenol (Note 2)
100-02-7	<1 ug/l	<1 ug/l Note 1			1.00	4 nitrofenol (Note 2)
50-32-8	<0.2 ug/l	<0.2 ug/l Note 1			1.00	benzopyrene (Note 2)
95-48-7	<0.2 ug/l	<0.2 ug/l Note 1			1.00	o cresol (Note 2)
	<0.2 ug/l	<0.2 ug/l Note 1			1.00	meta-para cresol (Note 2)
	24 mg/l	22.8 mg/l Note 1			1.00	TOC (Note 2)
	0.111 mg/l	0.129 mg/l Note 1			1.00	surfactants (Note 2)
57-12-5	0.012 mg/l	0.010 mg/l Note 1			1.00	cyanide, total (Note 2)
108-95-2	0.030 mg/l	0.012 mg/l Note 1			1.00	phenols (Note 2)
	<0.01 mg/l				1.00	residual chlorine (Note 2)
71-43-2	<0.3 ug/l	<0.3 ug/l Note 1			1.00	benzene (Note 2)
100-41-4	<0.2 ug/l	<0.2 ug/l Note 1			1.00	ethylbenzene (Note 2)
108-88-3	<0.2 ug/l	<0.2 ug/l Note 1			1.00	toluene (Note 2)
	<0.5 ug/l	<0.5 ug/l Note 1			1.00	meta-para xylenes (Note 2)
95-47-6	<0.2 ug/l	<0.2 ug/l Note 1			1.00	o xylenes (Note 2)
	40 PtCo				1.00	color (Note 2)
						Note 1- Results for these parameter were not detected
						Note 2 - Erosion from channels and traffic and contact stormwaters

Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
4/28/11	20 min	0.68 in	>72 h	200 gpm (recirculate)	no discharge
4/5/11	30 min	0.04 in	>72 h	200 gpm (recirculate)	no discharge
8/21/12	30 min	0.62 in	>72 h	200 gpm (recirculate)	no discharge

7. Provide a description of the method of flow measurement or estimate.

A flowmeter is available but was not used during this sampling. The small outfall pump was activated and the effluent recycled within the WWTP system.



Continued from the Front

**IV. Narrative Description of Pollutant Sources**

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
002	46.7 acres	58.4 acres			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

No significant materials are stored or managed on Outfall 002 drainage areas. Proper management in this area focuses on the removal of accumulated debris in the channels and leaf retention structures and sediment traps to reduce solids reaching the Flood Control Pond (FCP). Implementation of a SWPPP (Attachment 10, Section 5.0). Only herbicides are applied at a frequency of months at perimeter fence, tanks and docks pipe rack, main substation yard and around basins using spraying method on sunny days, and per manufacturer recommendation by a licensed technician.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
002	Under normal conditions runoff of non contact areas of Outfall 002 are received by the East and West Channels that drain into the FCP. These channels have sediment traps and gabions to retain solids and promotes oxygenation. Leaf retention structures and retention basins are installed in erosion prone areas to reduce TSS reaching the FCP. See Attachment 10 (A-3) for structural control locations. The schedule and type of maintenance is describe on SWPPP as part of Operation & Maintenance Inspections. Sediments inside sediment traps and vegetative materials are collected by Allied Waste and disposed as non-hazardous materials in the Ponce Industrial Landfill.	1-T 4-A

**V. Nonstormwater Discharges**

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
Hans Rutzen, Operations Director		

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

Eng. Robert Beato from the environmental consulting firm ERM conducted a visual inspection detecting dry weather discharges in 2008. Repeated the study in 2012. No dry weather discharges observed. In addition, a Conceptual Engineering report was developed (Refer to Attachment 16 for visual inspection certification and Attachment 18 for the Conceptual Engineering Report).

**VI. Significant Leaks or Spills**

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

No significant spills or leaks in the last three years.

**VII. Discharge Information**

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.  
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

Yes (list all such pollutants below)  No (go to Section IX)

**VIII. Biological Toxicity Testing Data**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

Yes (list all such pollutants below)  No (go to Section IX)

**IX. Contract Analysis Information**

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)  No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Environmental Quality Laboratories	PO Box 11485 San Juan PR 00910-1485	(787) 288-2840	All parameters on this application

**X. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (Type Or Print) Hans Rutzen, Operations Director	B. Area Code and Phone No. (787) 893-2424
C. Signature	D. Date Signed





## **Supplementary Information**

**Attachment 1**

**Response to EPA Comment Letter dated May 16, 2013 (received on May 21, 2013)**

closure activities, then that renewal application would be submitted 180 days prior to the permit expiration of the NPDES permit currently being prepared (i.e., under EPA regulations in 40 CFR §122.21(d)(2), a timely and complete renewal application will be submitted 180 days prior to the permit expiration}.

**Response From BCTL:**

Since a plan and schedule for completion of the Refinery demolition has not yet been finalized, BCTL is submitting this revised NPDES application without considering the closure of its wastewater treatment plant. BCTL will be requesting a modification or revocation and reissuance of the NPDES permit at least 180 days prior to the future planned elimination of the treatment facility, when alternate treatment or disposal schemes will be proposed for any remaining wastewater. We understand that closure activities cannot commence until an NPDES permit based on the updated activities is issued from EPA. All references to CORCO should be to BCTL.

**Page 3 of 13 Application Form 2C (Outfall 001)**

1. Item IIA- Application Form 2C, Item II.A requires a line drawing to be attached. For Item II.A, EPA reviewed the line drawing shown in Attachment 9 entitled "Water Balance - Current Conditions, Buckeye Caribbean Terminals LLC". The line drawing must also indicate treatment units. As such, EPA also reviewed Attachment 8 (entitled "Waste Water Treatment Plant Units, Buckeye Caribbean Terminals LLC") since it also shows water flow through the facility and treatment units (in more detail). The following deficiencies must be addressed:

- a. Water Flow Through the Facility - Tank Drains to 2 or 3 Cell Separator -  
The water balance in Attachment 9 shows the "Tank Drains" going to the 2 Cell Separator.

However the "Description of Treatment Units" in Attachment 8 shows the "Tank Water Drains from Tank Farm" going to the 3 Cell Separator.

This discrepancy must be corrected.

**Response From BCTL:**

Tank water drains from Tank Farm goes either to the 3-cell or the 2-cell API separators. Attachment 8 (Description of Treatment Units, Attachment 9 (Water Balance Diagram), and Form 2-C for outfall 001 of the NPDES revised application were modified.

**Page 4 of 13 Application Form 2C (Outfall 001)**

- b. Water Flow Through the Facility - Show if Refinery WWTP Treats Sanitary-  
The water balance in Attachment 9 does not show sanitary wastewater (Domestic) being treated in the refinery WWTP but instead it shows it as being treated in the DAVCO WWTP:

However the explanatory memo in Attachment 2 indicates that it is being treated in the WWTF located at the closed refinery:

The WWTF located at the closed refinery is in operation and is treating storm waters from the contact areas of the closed refinery, sanitary wastewaters, wash waters from refinery foot print area, water drained from storage tanks from the tank farm area, water from firefighting drills and other discharges such as condensate from air conditioning units, covered under current NPDES Permit PR0000400

This discrepancy must be addressed.

**Response From BCTL:**

Refinery's WWTP does not treat sanitary waste waters (Domestic). DAVCO package wastewater plant treats domestic waste waters. Explanatory Memo in Attachment 2 was modified to add clarity.

**Page 5 of 13 Application Form 2C (Outfall 001)**

- c. Water Balance between Treatment Units - Material Balance around 3 Cell Separator- Attachment 9 shows the material balance in and out of the "3 Cell" unit (i.e., the 3 Cell Separator):

The total into the unit is 104.426 kgpd (0.16 + 0.60 + 98 + 5 + 0.666). However, the total out of the unit is 103.76. This discrepancy of 0.666 kgpd must be addressed as well as the subsequent balances further downstream.

**Response From BCTL:**

The total into 3 Cell API Separator Unit (in kgpd) include 0.16 from Firefighting Drills +0.60 from Pavement Washings+ 98 from Closed Refinery+ 5 from Future Demolition + 0.015 from Tank Farm drains= 103.770 kgpd. The 0.666 kgpd goes to API Separator and WEMCO instead of 3 Cell API Separator. Attachment 9 (Water Balance Diagram) was modified to show the correct numbers.

2. Item II.B.2- The instructions for Item II.B.2 require a description of all operations contributing wastewater to the effluent, and the average flow contributed. The detailed instructions for Item II.B specifies the following in part:

**List all sources of wastewater to each outfall. Operations may be described in general terms (for example, “dye-making reactor” or “distillation tower”)**

The following deficiency must be addressed for Item II.B.2:

- a. Item II.B.2.a Operations - Caño Santiago (Infiltration) - The line drawing in Item IIA (Attachment 9) of the application shows the operation "Caño Santiago Infiltration" with a flow of 1.4 kgpd:

The instructions in Item II.A require that this operation must correspond to the more detailed descriptions in Item II.B. Item II.B.2 must show this operation and average flow.

**Response From BCTL:**

Item II.B.2 of Form 2C was amended to include Caño Santiago/Lajas Creek Infiltrations operation with an average flow contribution of 0.001400 MGD.

**Page 6 of 13 Application Form 2C (Outfall 001)**

3. Item II.B.3 Treatment for Olein Storm Water, Fire Drill Waters, Fire Hydrant

Flushing and Air Conditioner Condensate- The line drawing in Item II.A (Attachment 9) of the application shows the following material balance around the "Tank Farm":

It shows that 360 kgpd exits the tank farm to treatment in the "API Separator and WEMCO", 0.666 kgpd exits the tank farm to treatment in the "3-cell" API Separator and 7.3 kgpd exits for "Marine Vessel Use" and "Septic Tank Use".

However, it does not show how the incoming flows to the tank farm are divided between the flows exiting the tank farm.

It appears that 360 kgpd of storm water from the tank farm exits directly to the "API Separator and WEMCO" and 7.3 kgpd of "Potable Water PRASA" from the tank farm exits directly to the Marine Vessel Use (3 kgpd) and Septic Tank Use (4.3 kgpd). The remaining 0.666 kgpd exiting the tank farm goes to the 3-cell API Separator. This flow appears to be made up of 0.4 kgpd Olein Runoff, 0.16 kgpd Fire Drills, 0.1 Fire Hydrant Flushings and 0.006 kgpd Air Conditioner Condensates.

#### **Page 7 of 13 Application Form 2C (Outfall 001)**

However, Item II.B.3 appears to show that the 0.666 kgpd flow from these operations go to the "Tank Farm API and WEMCO Treatment" as follows:

Therefore, the application must clarify how the flows that enter the tank farm are treated. Specifically:

- the application must clarify whether the 0.4 kgpd Olein Runoff, 0.16 kgpd Fire Drill Water, 0.1 kgpd Fire Hydrant Flushing and 0.006 kgpd Air Conditioner Condensate s all go to the "3-cell" API Separator for treatment or whether a portion of any goes to the "Tank Farm API and WEMCO Treatment" or for "Marine Vessel" or "Septic Tank" use.

#### **Response From BCTL:**

The 0.666 kgpd previously identified as going to the 3-cell separator from the Tank Farm was incorrect and deleted in the water balance diagram (Attachment No. 9). The Olein Runoff (0.4 kgpd), Fire Drill Water (0.16 kgpd), Fire Hydrant flushing's (0.10 kgpd) and Air Conditioned Condensate (0.006 kgpd) making up the 0.666 kgpd goes into API Separator and WEMCO for treatment, not the 3-cell separator. A flow of 7.3 kgpd from PRASA's potable water enters the Tank Farm from which 3 kgpd goes to Marine Vessel's use and 4.3 kgpd(for Tank Farm use ). After use,the waste water goes to the Septic Tank. Application Form 2C was amended to include these changes.

- the application must clarify whether all of the 360 kgpd storm runoff from the tank farm goes to the "API Separator and WEMCO" or whether a portion goes to the "3-cell" API separator or for "Marine Vessel" or "Septic Tank" use.

**Response From BCTL:**

The 360 kgpd storm runoff from the tank farm goes entirely to the "API Separator and WEMCO". Attachment 9 (Water Balance Diagram) illustrates this. Application Form 2C was amended as required.

- the application must clarify whether the entire 7.3 kgpd "Potable Water PRASA from the tank farm goes entirely to "Marine Vessel Use" and "Septic Tank Use" or whether a portion goes to either the "Tank Farm API and WEMCO Treatment" or "3-cell" API Separator.

**Response From BCTL:**

The 7.3 kgpd potable Water PRASA entering the Tank Farm is split in two. A flow of 3 kgpd goes to Marine Vessel use and 4.3 kgpd goes to the Septic Tank, following use. Attachment 9 (Water Balance Diagram) illustrate this. Application Form 2C was amended to indicate this.

4. Item IX- When re-submitting the revised application information, the certification in Item IX for Outfall 001 must be re-signed and dated.

**Response From BCTL:**

Application Form 2C (Outfall 001) was re-signed and dated.

**Page 8 of 13 Application Form 2F (Outfalls 001 and 002)**

Application Form 2F (Outfalls 001 and 002):

1. Item III - Form 2F, Item III requires a site drainage map. Attachment 6 of the prior submission included six different maps of which the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> referred to drainage maps in their title. The current submission includes topographical maps in Attachment 7 which do not show drainage areas and also includes the following maps which are related to site drainage:

- Attachment 10, Figure 2.5: It is titled "Storm Water Drainage Map Outfall

002" and the project is titled "Storm Water Drainage Areas",

- Attachment 10(A)September 2012 SWPPP, SWPPP 2F Related Diagrams: It is titled "Storm Water Drainage Map Outfall 002" and the project is titled "Storm Water Drainage Areas", and
- Attachment 11 Consent Decree: It is titled "Drainage Diagram".

The following deficiencies found with these maps must be addressed:

- a. The instructions require the map to depict the drainage area of each storm water outfall. The map shows drainage areas by coloring and stripped shading. EPA has found the following deficiencies with the site drainage map, which must be addressed. The map being referred to is the map in Attachment 10A of the application unless otherwise specified:
- Refinery Area:
    - West Channel (Outfall 002): The map appears to denote this area by purple shading and by including the title "West Channel". There is a description elsewhere in the application, which indicates that this channel goes to Outfall 002. But the map does not denote that this is the drainage area for Outfall 002. Therefore, the map must denote the outfall for this drainage area.
    - East Channel (Outfall 002): The map denoted this area by red shading and by including the title "East Channel". There is a description elsewhere in the application that indicates that this channel goes to Outfall 002. But the map does not denote that this is the drainage area for Outfall 002. Therefore, the map must denote the outfall for this drainage area.
    - Undefined Area between East & West Channel: The map denotes this area by green shading but does not provide a title to this area. The map does not denote the outfall to which the storm water from this area discharges. Therefore, the map must denote the outfall for this drainage area. A title is not necessary.
    - Undefined Area above East Channel (with WWTP, etc.): The map denotes this area by yellow shading but does not provide a title to this area. The map does not denote the outfall to which the storm water from this area discharges. Therefore, the map must denote the outfall for this drainage area. A title is not necessary.

**Response From BCTL:**

Attachment 10-A, has been revised and renamed as Storm Water Drainage Map Outfalls 001 and 002 to clarify the identification of the drainage areas for Outfalls 001 and 002. The revised Attachment 10-A also replaces Figure 2.5 of the Storm Water Pollution Prevention Plan. . Please note that the unshaded area between the Closed Refinery's Earth Dike and the Olein facilities is not a part of BCTL's property.

Attachment 11 is the Consent Decree and the Drainage Diagram, as part of it, cannot be modified by BCTL.

**Page 9 of 13 Application Form 2F (Outfall 001 and 002)**

- Tank Farm Area: This area is denoted by red shading. There is a description elsewhere in the application that indicates that this area goes to Outfall 001. But the map does not denote that this is the drainage area for Outfall 001. Therefore, the map must denote the outfall for this drainage

**Response From BCTL:**

Attachment 10-A, has been revised and renamed as Storm Water Drainage Map Outfalls 001 and 002 (Drawing No. C-05) to clarify the identification of the drainage areas for Outfalls 001 and 002. The revised Attachment 10-A also replaces Figure 2.5 of the Storm Water Pollution Prevention Plan.

- Dock Area: The map in Attachment 10, Figure 2.5 shows red shading continuing from the tank farm area all the way to the dock facilities. However, the map in Attachment 10[A] does not show this shading. Therefore, this discrepancy must be corrected and the map must denote the outfall for this drainage area.

**Response From BCTL:**

Attachment 10-A, has been revised and renamed as Storm Water Drainage Map Outfalls 001 and 002 (Drawing No. C-05) to clarify the identification of the drainage areas for Outfalls 001 and 002. The revised Attachment 10-A also replaces Figure 2.5 of the Storm Water Pollution Prevention Plan.

Other Areas: An other areas within the property boundary (e.g., pipe rack connecting Tank Farm and Refinery Areas; pipe rack connecting Tank Farm and Dock Areas; etc.), which are drainage, areas for either of the outfalls must be specified along with the outfall for the drainage area

### **Response From BCTL:**

Attachment 10-A, has been revised and renamed as Storm Water Drainage Map Outfalls 001 and 002 to clarify the identification of the drainage areas for Outfalls 001 and 002. The revised Attachment 10-A also replaces Figure 2.5 of the Storm Water Pollution Prevention Plan.

b. The instructions require the map to depict paved areas within the drainage area of each storm water Outfall. In the prior deficiency letter, EPA indicated that it is not clear in the map which areas in each of these drainage sub-basins are actually paved/impervious and required that they be identified on the map(s) in the application. The narrative response in Attachment 1 states: "The area determination made in the applications is correct based on site visits". It goes on to say: "The map will be presented in more detail to provide information requested." EPA has reviewed the updated maps in Attachment 10, Figure 2.5 and Attachment 10[A]. Both maps include a colored legend which appears to denote different areas as follows:

- The entire yellow area on the maps appears to be denoted in yellow as "Concrete Channel" on the legend. It appears to include the refinery area north of the East Channel (e.g., the wastewater treatment plant, flood control pond, etc.);
- The red area on the maps appears to be denoted in red as "sub-basin" on the legend. It appears to include the entire East Channel, the entire Tank Farm Area, and the pipe rack connecting the Tank Farm and refinery Areas. Figure 2.5 also includes in red the pipe rack connecting the Tank Farm and Dock areas and the Dock area;
- The purple area in the maps is not denoted on the legend. It appears to include the entire West Channel; and

The green area the maps appear to be denoted in green as "Earth Channel" on the legend. It appears to include the middle of the refinery area between the East and West Channels.

### **Response From BCTL:**

- Attachment 10A was revised, and now shows all contours outlined in black:
  - The yellow area contour is now shaded, and outlined in black. The concrete channel is colored in solid yellow.
  - The red shaded area depicts the Tank Farm sub-basin, and does not include the East Channel, which is depicted in orange. The earthen channel delimiting the sub-basin is shown as a solid brown line.

- The purple shaded area in the map is now denoted on the legend and includes the entire West Channel.
- The green area contour is shaded, and is now outlined in black.

**Page 10 of 13 Application Form 2F (Outfall 001 and 002)**

The maps do not show if the red area in the East Channel is entirely paved. The narrative response says:

The maps included distinguished the main roads and buildings. These are considered paved areas. On the former refinery area (marked green is mostly paved area. Certain areas may have grass on them and still be paved. The determination of paved and unpaved a made on the NPDES Forms 2F considered these areas but not provide full detail to not overload the diagram.

Therefore, the map must identify (in the legend if possible or elsewhere on the map) that the Red area in the East Channel is paved/impervious. In addition, the maps do not show if the red area in the Tank Farm Area is entirely paved. The narrative response says:

The area determination made in the applications is correct based on site visits. We did not provide the full detail to not overload the image presented.

In addition, the maps do not show if the red area in the pipe rack connecting the Tank Farm and Refinery Areas is impervious. If so, then the map must identify (in the legend if possible or elsewhere on the map) that this area is paved/impervious. Also, the continuation of this pipe rack from the road shown as "P.R. No. 53" westward to the Refinery area is not identified by any coloring. If it is part of an outfall basin and is impervious it must be identified as paved/impervious.

In addition, the maps do not show if the red area in the pipe rack connecting the Tank Farm and Dock areas is impervious as well as whether the Dock area itself may be impervious. If so, then the map must identify (in the legend if possible or elsewhere on the map) that this area is paved/impervious.

**Response From BCTL:**

A new Attachment 10[A1] named Outfalls 001 and 002 Paved/Impervious Areas is included to illustrate the areas that are actually paved and impervious.

**Page 11 of 13 Application Form 2F (Outfall 001 and 002)**

- c. The instructions require the map to depict each known past or present areas used for outdoor storage or disposal of significant materials. In the prior deficiency letter, EPA indicated that the statement in Form 2F, Item IV.B indicates that, although exposure to materials and products is minimized, there still may be exposed materials, specifically significant materials and if so, then the map must be revised to depict any such areas. The narrative response in Attachment 1 states: "Map has been updated with this information". EPA has reviewed the updated maps in Attachment 10, Figure 2.5 and Attachment 10 [A]. EPA found a pointer to "Hazardous Waste Storage Area" in the yellow area within the Refinery Area and a pointer to "Intermediate Tank Storage" within the Refinery Area. However, neither indicates whether these areas are outdoors, whether significant materials are stored there and whether these are past and/or present areas. Therefore, if there are any known past or present areas used for outdoor storage or disposal of significant materials, the map must depict these areas and indicate that the area is outside and that it was either used in the past or is used presently for significant materials.

**Response From BCTL:**

A new Attachment 10[A2] named Significant Materials Storage Locations is included to illustrate the areas that were previously, and are presently used for significant materials storage purposes.

- d. The instructions require the map to depict each existing structural control measure to reduce pollutants in storm water runoff.

Outfall 001: Application 2F, Item IV.C for Outfall 001 describes structural control measures including "Dike areas at Tank Farm". In the prior deficiency letter, EPA indicated that the map must be revised to depict and denote the dike areas in the tank farm area. It also indicated that the map must be revised, as necessary, to depict and denote dike areas in the old refinery area. The narrative response in Attachment 1 states: "Map has been updated to present these areas". EPA has reviewed the updated maps in Attachment 10, Figure 2.5 and Attachment 10 [A]. The revised maps continue to show a single red line around the tank farm area with red hash marks. A pointer to the red hash lines is shown as "Flood Control Dike". The application refers to dike areas as plural in the tank farm area. However, only a single red line surrounding the entire tank farm area is shown. If there is more than a single dike in the tank farm area, then the map must be revised to

depict and denote each individual dike for Outfall 001.

Also, the narrative response in Attachment 1 states that "on the contact areas the former refinery units are located within concrete dikes that would drain into the 3 cell unit." It appears the "concrete channel" denoted in yellow on the map in the former refinery contact area is the same as the "concrete dikes" described in Attachment 1. It explains that the units are within these concrete dikes. The term "within" indicates that the units may be fully enclosed. However, these concrete channels are not shown as fully enclosed. If the concrete dikes (denoted as "concrete channels" on the map) are actually fully enclosed, then the map must be revised to show any such correction.

**Response From BCTL:**

A new Attachment 10[A3] Structural Controls- Dikes and Curbs, is included to illustrate the corresponding dikes inside the Tank Farm area, and the dikes and curbs located inside the Refinery.

Outfall 002: Form 2F, Item IV.C for Outfall 002 describes existing structural controls. It indicates that the East and West Channels have sediment traps and gabions to retain solids and promote oxygenation, and leaf retention structures and retention basins in erosion prone areas to reduce TSS reaching the Flood Control Pond. In the prior deficiency letter, EPA indicated that the map must be revised to depict these structural control measures. The narrative response in Attachment 1 states: "Structural controls presented on Attachment 10[A] maps". The map in Attachment 10[A] shows the non-contact areas in the East and West Channels which discharge through Outfall 002. However, this map again does not depict the "sediment traps and gabions" or the "leaf retention structures and retention basins". Therefore, the map must be revised to depict and denote these structural control measures for Outfall 002 including the East Channel sediment trap, East Channel gabion, West Channel sediment trap, West Channel gabion, leaf retention structures and retention basins. Also, the response refers to "Attachment 10[A] maps" in the plural. EPA only received a single map in Attachment 10[A].

**Response From BCTL:**

A new Attachment 10[A4] named Outfall 002 Non-Contact Storm Water Structural Controls is included to illustrate the location of structural controls such as sediment traps, gabions, screen bar and channels.

**Page 12 and 13 of 13 Application Form 2F (Outfall 001 and 002)**

- e. The instructions require the map to depict areas where pesticides, herbicides, soil conditioners, and fertilizers are applied. In the prior deficiency letter, EPA indicated that the map must be revised to depict and denote any such areas for Outfall 002. The narrative response in Attachment 1 states: "Map has been updated to present these areas". Application Form 2F, Item IV.B for Outfall 001 specifies that "Only herbicides are applied at a frequency of 3 months at perimeter fence, tanks and docks pipe rack, main substation yard and around basins using spraying method on sunny days, and per manufacturer recommendation by a licensed technician." Application Form 2F, Item IV.B for Outfall 002 specifies that "Only herbicides are applied at a frequency of 3 months at perimeter fence, and around basins using spraying method on sunny days, and per manufacturer recommendation by a licensed technician." These statements indicate that there are areas where pesticides and herbicides are applied for both Outfalls. However, EPA could not find any such depiction on the map for the following areas in either the Outfall 001 or Outfall 002 drainage areas: at perimeter fence and main substation yard and around basins (i.e., ballast basin, and tank farm fire basin). Therefore, the map must be revised to depict and denote these areas.

**Response From BCTL:**

A new Attachment 10 [A5] named Herbicides Application Areas is included to depict and denote these areas.

2. Item IV.C- The following deficiencies must be addressed:

- a. Form 2F, Item IV.C requires the applicant to provide the location and description of existing structural control measures to reduce pollutants in storm water runoff. In the prior deficiency letter, EPA indicated that if there are any structural controls separating the contact and non-contact areas, then Item IV.C must be revised to describe the structural control(s) and the location(s). The narrative response in Attachment 1 states: "On the contact areas the former refinery units are located within concrete dikes that would drain into the 3 cell unit." However, these structural controls (i.e. concrete dikes) were not described directly in Item IV.C. Therefore, Item IV.C must be revised to also describe these structural control(s) and the location(s).

**Response From BCTL:**

Form 2 F, Item IV.C for Outfall 001 was amended to better describe the structural controls separating the contact and non-contact areas in the former Refinery. Also a new attachment 10 [A6] named Plant Storm Water Runoff Contact and Non-Contant Areas is included to depict and denote these areas.

3. VIIC - The Form 2F, Item VII.C requires "CAS Number (if available)". For Outfall 001, certain CAS numbers appear incorrect:
- a. A CAS # of 58553 is reported for "benzoanthracene". EPA could not find a corresponding chemical name associated with this CAS #. EPA found the following CAS #: 56-55-3. Also, EPA could not find the same spelling for this pollutant in Form 2F, Table 2F-2, 2F-3 or 2F-4. The application must use the same name and spelling as shown in the applicable Form 2F, Table 2F-2, 2F-3 or 2F-4.
  - b. A CAS # of 98-75-3 is reported for "nitrobenzene". EPA could not find a corresponding chemical name associated with this CAS #. EPA found the following CAS #: 98-95-3;
  - c. A CAS # of 50-37-8 is reported for "benzopyrene". EPA could not find a corresponding chemical name associated with this CAS #. EPA found the following CAS #: 50-32-8. Also, EPA could not find the same spelling for this pollutant in Form 2F, Table 2F-2, 2F-3 or 2F-4. The application must use the same name and spelling as shown in the applicable application Form 2F, Table 2F-2, 2F-3 or 2F-4;
  - d. A CAS # of 59-50-7 is reported for "mp cresol". This value corresponds to the chemical name m- cresol. Also, EPA could not find either "m-cresol" or "mp cresol" in Form 2F, Table 2F-2, 2F-3 or 2F-4. The name "mp cresol" must be revised to show the same name and spelling as shown in the applicable Form 2F, Table 2F-2, 2F-3 or 2F-4;
  - e. A CAS # of 74-90-8 is reported for "cyanide". This value corresponds to the chemical name hydrogen cyanide;
  - f. A CAS # of 108-38-3 is reported for "mp xylene". This value corresponds to the chemical name m- xylene. Also, EPA could not find either "m-xylene" or "mp xylene" in Form 2F, Table 2F-2, 2F-3 or 2F-4. The name "mp xylene" must be revised to show the same name and spelling as shown in the applicable Form 2F, Table 2F-2, 2F-3 or 2F-4.

**Response From BCTL:**

Form 2 F, Item VII.C, for Outfall 001 was changed to include the right CAS numbers and names.

4. Item X - When re-submitting the revised application information, the certification in Item X for Outfalls 001 and 002 must be re-signed and dated.

**Response From BCTL:**

Application Form 2F for Outfall 001 and 002 were re-signed and dated.

Buckeye Caribbean Terminals LLC

Yabucoa Puerto Rico

NPDES Permit Application

Attachment 2 – Explanatory Memorandum  
(Revised on June 2013)

On December 10, 2010 Buckeye Caribbean Holding Limited acquired from Shell Caribbean Investment Limited all share of stocks of Shell Chemical Yabucoa, Inc. (a corporation organized under the Puerto Rico Corporations Law). Upon the acquisition of the stocks, that same day, the corporate name of Shell Chemical Yabucoa, Inc. was changed to Buckeye Caribbean Terminals, Inc. Subsequently, on December 17, 2010, pursuant to Article 19 of the Puerto Rico Corporations Law, Buckeye Caribbean Terminals, Inc. filed for a conversion into a limited liability corporation (Buckeye Caribbean Terminals LLC). This conversion became effective on January 2, 2011.

Buckeye Caribbean Terminals LLC (BCTL) operates a Petroleum Bulk Storage Terminal (PBST) complex at State Road 901 Km 2.7 Yabucoa Puerto Rico. As such, it leases fuel storage capacity and receives customer's imports of fuel components and finished fuel products for blending and sale of gasoline, diesel, jet fuel, kerosene and fuel oil for the Puerto Rico and regional markets. The facility also has the capacity to receive, load and store crude oil. Products handled at the PBST are typically received by marine vessels at the terminal's loading docks. A small volume of product is delivered to the PBST by cargo truck.

The products are transferred via product piping from the marine vessels at the vessel dock or from cargo trucks to bulk storage aboveground tanks located within the terminal's tank farm. The PBST operates a tank farm, two docks (marine dock and barge dock), a truck loading rack and wastewater treatment units. The PBST has a total storage capacity of 4,624,863 bbls with an average storage volume of 2,857,178 bbls. The average daily throughput is around 70,000 bbl/day. The largest tank has a capacity of 315,000 bbl. The intent is for Buckeye to supply all of their customer products in Puerto Rico from the truck loading rack.

The marine dock operates 24 hours/day, 7days/week. The dock is equipped with one tanker dock, one barge dock and one tug dock. The tanker dock is equipped with eight (8) marine steel loading arms used to load and unload product from the marine vessels. The barge dock is equipped with two (2) steel loading arms used to load and unload product from marine barges.

The product transfers are mainly made via the Tank Farm tanks to the Truck Loading rack, where the product is loaded into tank trucks for transportation. The loading rack used for gasoline has vacuum assisted vapor recovery. It can also be used to load heavier products such as diesel fuel, kerosene, jet fuel and fuel oils.

The refinery process units were shut down in July 2008. The units were de-inventoried, removing all the product within them, decontaminated with nitrogen, steams and water preserved. The refinery is scheduled to be demolished within two to four years.

At this stage the initial removal will consist of the refinery units and it is expected that around 10,000 gpd of decontamination water may be generated. This stream would contain traces of the residues that could not be removed in the initial decommissioning. The product streams would be treated within the existing wastewater treatment plant prior to disposal. The potential Parameters to be present have already been considered in the current NPDES forms and the water contribution is estimated in the balance.

The other associated parameters would be the potential increase of solids and debris within the demolition areas. As such proper pollution prevention and erosion control activities will be implemented to minimize the discharge of pollutants into the waters. Any contact runoff will reach the 3 cell separator and the rest of the WWTP, similar to the current operation. This consideration has also been included on the NPDES application.

Once the refinery units removal is complete then the utilities piping and concrete slabs will be removed and disposed of per regulatory requirements. Any waters generated during this step will be treated in the wastewater treatment plant.

The intention is to close the wastewater treatment plant once the demolition is completed and all of the logistics involved with the closure can be identified and worked out. A timely NPDES application that includes a closure plan for the existing wastewater plant will be prepared at least 180 days prior to the onset of closure activities.

#### Treated Discharges from Outfall 001

Due to the overall layout of the facility and the distance between the closed refinery and the Tank Farm, about one mile apart there are two Wastewater Treatment Facilities (WWTFs); one is located in the closed refinery area and the other at the Tank Farm. The WWTF located at the closed refinery is in operation and is treating storm waters from the contact areas of the closed refinery, wash water from refinery foot print area, water drained from storage tanks from the tank farm area, water from firefighting drills and other discharges such as condensate from air conditioning units and laboratory wash water, covered under current NPDES Permit PR0000400. Moreover, the WWTF will receive the waste water originated during the refinery demolition activities. To process these water streams, the waste water treatment unit in the refinery area incorporates primary treatment for oil recovery with a 3-Cells Separator and 2-Cells Separator (when refinery was in operation the 2-Cell received all the refinery process waters), and secondary treatment facilities which includes biological treatment of waters in a complete mixing activated sludge system. The stream coming from the biological treatment passes through a clarifier unit for further separation of solids and organic materials. Settled sludge at the Clarifier is returned to the activated sludge biological treatment basins to maintain the activated sludge plant operational balance. Excess or waste sludge is sent to the digester basin for stabilization. Digested sludge is then processed in sludge drying beds for disposal offsite.

Sanitary contributions from the refinery and a septic (holding) tank in the tank farm area are processed by a DAVCO package plant with an extended aeration setup, including clarifier and a digester tank. Any excess solids generated are also processed in the sludge drying beds.

Clarified water effluent mixes with effluent water from a sanitary process unit (DAVCO) and discharge into the Tank Farm Fire Basin.

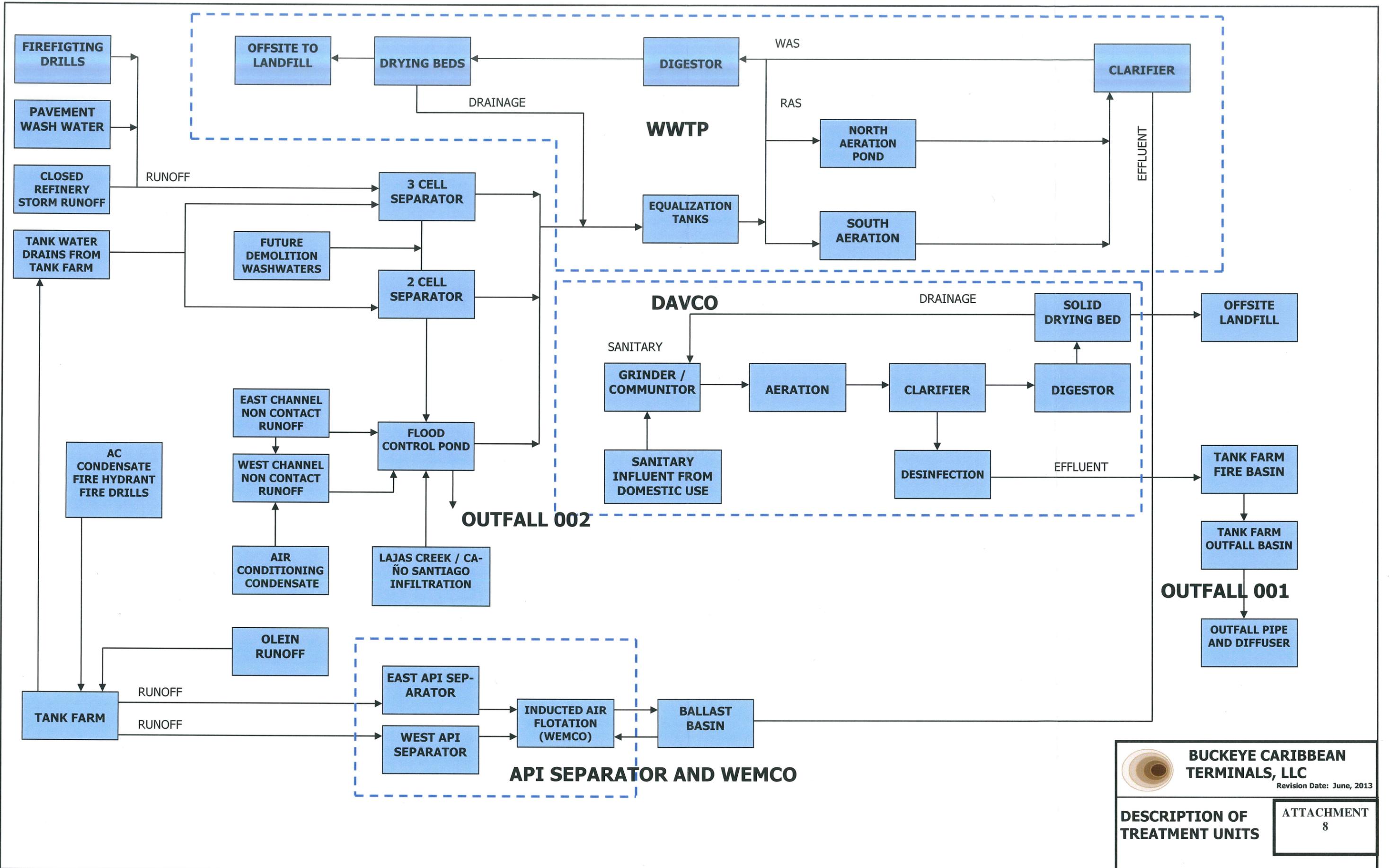
The Tank Farm area is divided in two sections (east and west corridors). Both corridors are equipped with a dedicated 2-Cells API separator used to manage storm water collected in the tanks' dikes and north pipe rack dike. The north pipe rack dike also receives a small runoff contribution from the Olein facilities. These Olein waters are solely composed of non-contact storm runoff, no process waters or contact storm runoff reach this discharge. Waters from fire drills, condensate from air conditioning units and from fire hydrants flushing also contribute to discharge 001, and are managed through the two 2-Cells API separator units.

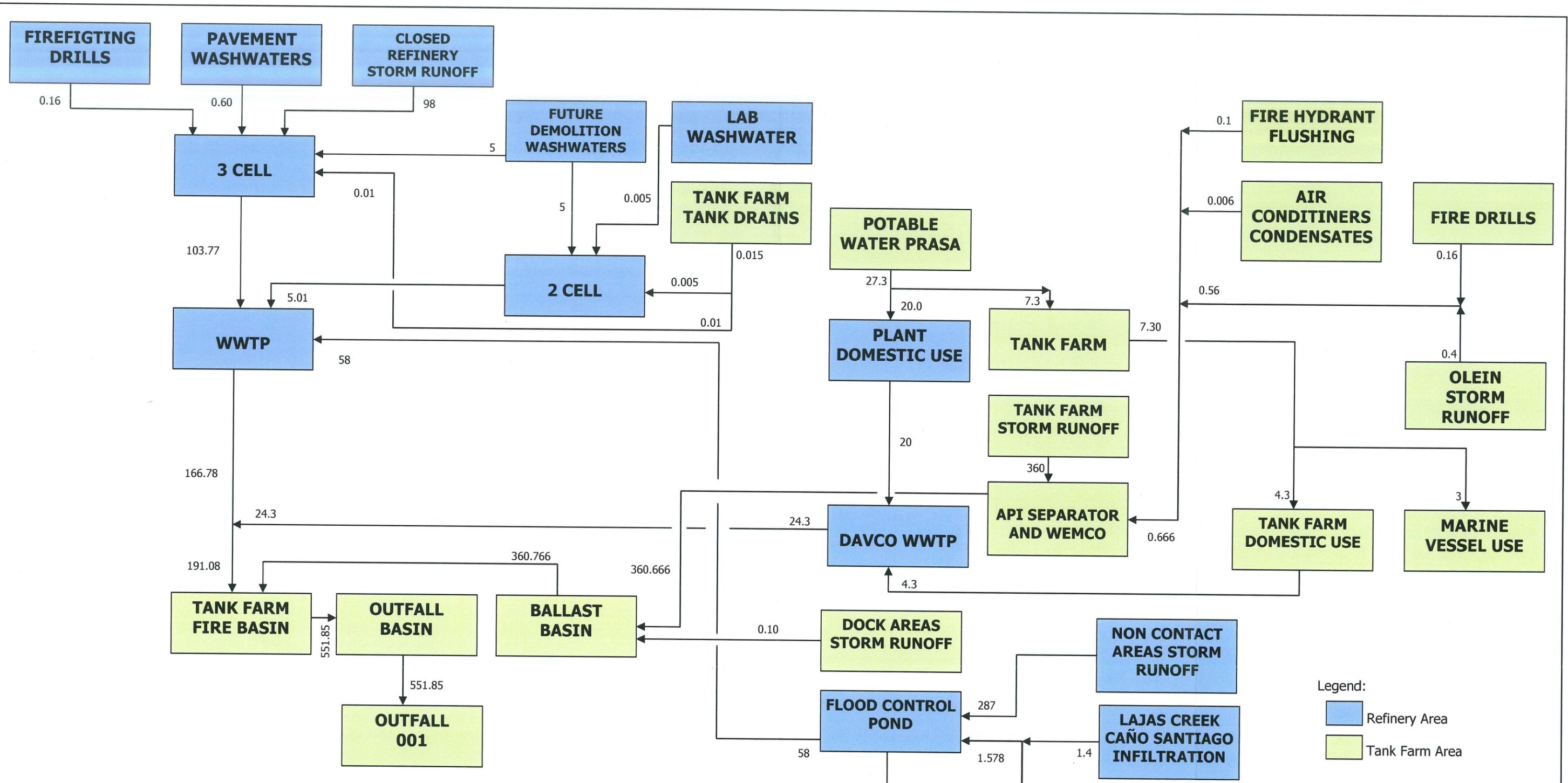
Storm waters from both 2 Cells API separators are pumped to a depurator unit (WEMCO) which employs mechanically-induced air flotation to separate solids, oils or organic materials from the stream. From the WEMCO unit, treated storm water is pumped to the Ballast Basin and then to the Fire Water Basin. Certain storm runoff waters from the dock area are routed to the Ballast Basin. The treated storm waters in the Fire Basin are combined with the effluent from the Plant treated water which overflows to the Outfall Basin. Samples are collected at outfall 001 authorized discharge sample point for analysis according to the NPDES permit PR0000400. The treated waters are then discharged to the Yabucoa Bay through the authorized outfall 001.

#### Outfall 002

Storm water runoffs from the non-contact areas are collected in a Flood Control Pond (FCP). Storm waters reach the FCP through two distinct channels: the west and the east channels. Storm waters in the FCP can be pumped into the wastewater treatment plant or discharged through authorized Outfall 002. Several control devices, such as rocks gabions structures fixed to the channels, sediment traps at parking lot and warehouse yard, and leave retention structures around east channel, are installed in the channels and areas of the site to minimize the accumulation of solids and debris. . Surface water infiltration from Caño Santiago, as well as air conditioner water condensate contributes to discharge 002.

Previously there was a normally closed connection between the 3-cell separator and the FCP. This connection was capped off in August 2012. The intent of the connection was to protect life and equipment within the refinery area in case of major flooding. Since there are no operations within the refinery there is no need to prevent the flooding of the area.





Units in kgpd  
 1 kgpd = 1,000 gallons/day

- 001 Contact Area 19.90 acres (15.92 paved and 3.98 unpaved)
  - 001 Tank Farm 105.6 acres (87.4 paved, 11.68 unpaved)
  - 002 Non Contact Area 58.4 acres (46.72 paved 11.68 unpaved)
- Any excess waters from the dock area is transported to the WWTP.

The rainfall estimates are based on an event of 80.6 in/y (USCG Water Resources Investigation Report 96-4188). Runoff coefficients for this balance are based on a C=0.9 for paved areas and 0.5 for unpaved areas. The dock area is very sandy, a 98% percolation is expected. Rate was based on the 35,000 sq ft of exposed piping rack area.

20% of Flood Control Pond runoff is redirected to the WWTP.

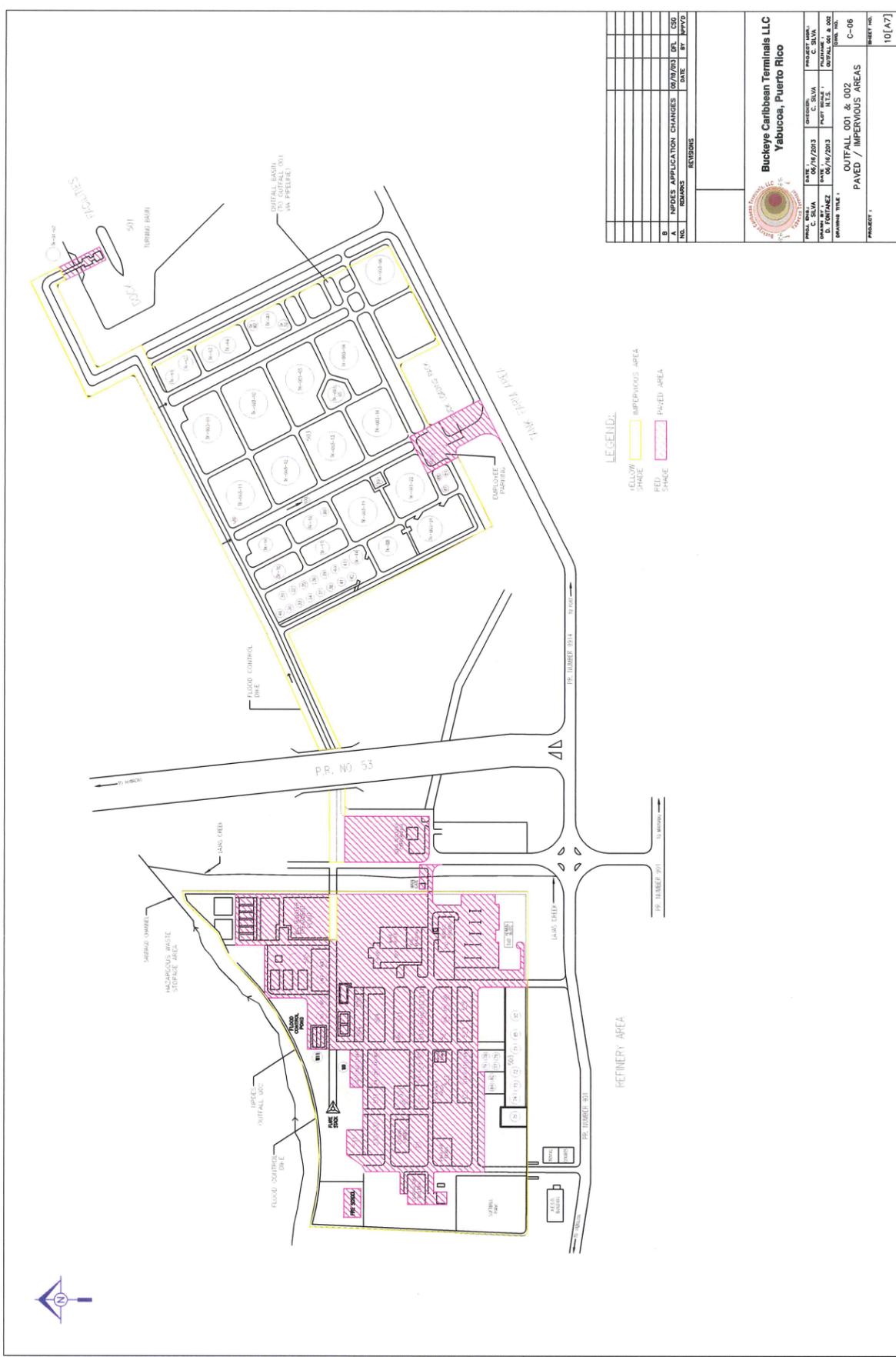
Legend:  
 Refinery Area  
 Tank Farm Area

**BUCKEYE CARIBBEAN  
 TERMINALS, LLC**

Revision Date: June, 2013

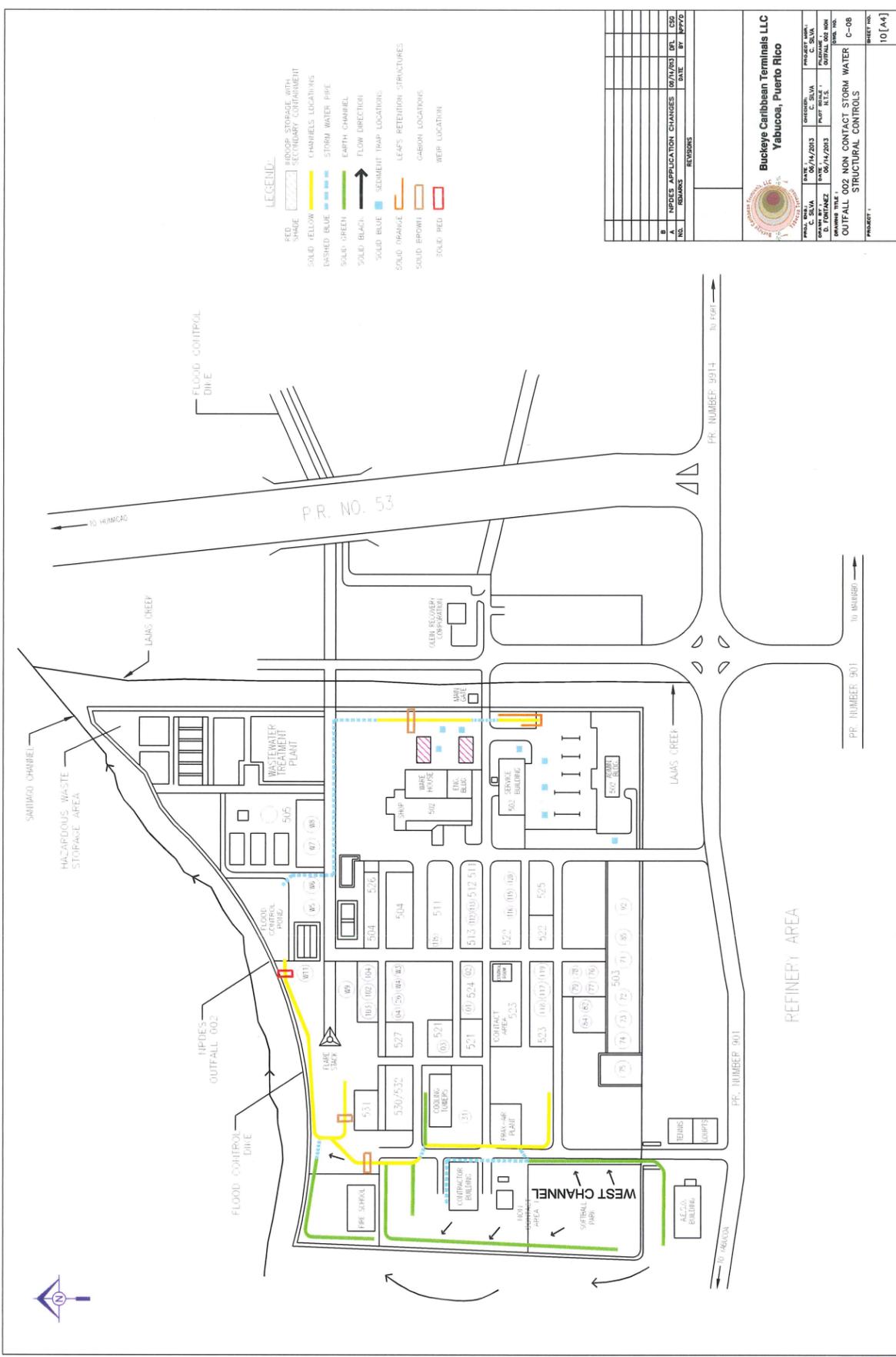
<b>WATER BALANCE</b>	<b>ATTACHMENT 9</b>
----------------------	-------------------------















<b>NON-STORM WATER DISCHARGE ASSESSMENT AND CERTIFICATION</b>					
Worksheet #5 Completed by: <u>Carmelo Silva</u> Title: <u>HSSE Manager</u> Date: <u>07/21/2011</u>					
Date of Test or Evaluation	Outfall Directly Observed During the Test (identify as indicated on the site map)	Method Used to Test or Evaluate Discharge	Describe Results from Test for the Presence of Non-Storm Water Discharge	Identify Potential Significant Sources	Name of Person Who Conducted the Test or Evaluation
07/21/2011	East and West Aisle concrete ditch, dike of Tank TK-003-15 and open concrete ditches	Visual evaluation / Field Inspection	The onsite drainage points directly observed during the evaluation were: East and West Aisle concrete ditch, dike of tank TK-003-15, and open water concrete ditches where runoff from parking lot, building areas east of the process units, open grassed areas and other facilities west of the process area is collected and discharged into the Flood Control Surge Pond. Also observed were the uncontaminated storm water ditch adjacent to the Warehouse yard and also the contaminated storm water sewer. Observations made during the inspection were sufficient to determine that there is no presence of non-storm water discharges. For this reason additional testing (e.g., dye or smoke testing) was judged to be unnecessary at the present time.	None	Carmelo Silva
<b>CERTIFICATION</b>					
I, <u>Carmelo Silva</u> (responsible corporate official), certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
A. Name & Official Title (type or print) Carmelo Silva HSSE Manager			B. Area Code and Telephone No. 787-893-2506 /787-893-2424		



**BUCKEYE CARIBBEAN TERMINALS, LLC**

*Celebrating 125 Years of Service*  
1886 - 2011

Carretera 901 Km 2.7  
Bo Camino Nuevo  
P.O. Box 186  
Yabucoa, Puerto Rico 00767-0186

February 14, 2013

**# 7008 1300 0001 5253 9644**

**Certified Mail**

Mr. Jose Rivera  
US Environmental Protection Agency  
Caribbean Environmental Protection Division  
City View Plaza, Suite 7000  
#48 165 Rd. Km 1.2  
Guaynabo, PR 00968-8069

Dear Mr. Rivera:

Re: **Status Report of Compliance Evaluation Inspection**  
**Buckeye Caribbean Terminals LLC, Yabucoa, Puerto Rico**  
**NPDES Tracking Number PR0000400**

Reference is made to EPA Compliance Evaluation Inspection Review letter, received by Buckeye Caribbean Terminals (BCT) on March 28, 2012. BCT hereby is providing a status report to the findings of the inspection performed by EPA on September 23, 2011.

**FINDING CONCERNING THE INSPECTION**

**EPA Finding:** 1) Removal of Sediments from the East and West API Oil/Water Separators – BCT indicated in its November 11, 2011 letter that approximately 60.7 cubic yards of oil-contaminated sediments will be removed from both Separators. Please provide an update of the removal of sediments from both Separators. Please include a copy of the waste transportation manifest, if final removal of sediments has been completed.

***BCT Status:** The East API: clean-up was completed previously.  
The West API: clean-up was completed previously.*

**EPA Finding:** 2) Removal of Sludge from the 3-Cell and 2-Cell API Oil/Water Separators – BCT indicated in its November 11, 2011 letter that approximately 511 cubic yards of oil-contaminated sludge will be removed from both Separators. Please provide an update of the removal of sludge from the both Separators.

manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Should you have any questions concerning the attached information, please do not hesitate to contact us.

Cordially,

 on behalf of Hans Rutzen  
Hans Rutzen  
Operations Director

## **Former Shell Refinery Demolition Plan**

### **Phase I - Current Wastewater Treatment Plant Operations**

When operational, the refinery processed between 75,000 and 85,000 barrels per day of crude oil to produce various chemical products. Operations of the process units in the Refinery Area ceased on July 15, 2008; however, a portion of the facility continues operating as a petroleum bulk station and terminal. The facility was sold to Buckeye on December 2010. As part of the sale agreement, Buckeye agreed to operate the Refinery's wastewater treatment system (WWTS) through dismantlement of the refinery units, removal of the sewer system, and any corrective action activities within the refinery footprint, if necessary.

Wastewater treatment facilities are located in both the Refinery and Tank Farm areas. The principal WWTS located at the Refinery is designed to treat waters from the Refinery Area. The Refinery WWTS includes a series of wastewater units which are designed and operated to manage the three primary types of wastewaters produced at the facility during historic and current operations. These wastewater streams include:

- Clean storm waters from non-industrial areas (clean storm water impoundment system known as Flood Control Pond),
- Refinery process contact wastewater (2-Cell Separator System), and
- Contaminated storm water from the refinery foot print area (3-Cell Separator System).

Clean storm waters from non-industrial areas are collected in the flood control pond (FCP). The storm waters are routed to the FCP through two distinct channels: the west and the east channels. Storm waters in the FCP can be pumped into the wastewater treatment plant or discharged to Santiago Creek through NPDES authorized Outfall 002.

The refinery has two completely segregated sewers system that conveyed wastewater streams to the 2-Cell or 3-Cell Separators to prevent the mixing of contact storm water with refinery

digester, organic materials were stabilized and the solids volume was substantially reduced. After adequate digestion (approximately 15-20 days) sludge was transferred to the sludge drying beds, where water was filtrated by gravity through a sand bed and evaporated with sunlight. Water filtrate was sent back to the two equalization tanks for processing. Sludge cake at the sludge drying beds was put into containers and disposed of off-site.

#### **Phase II - Wastewater Treatment Plant Operations during Demolition Activities**

The refinery area is currently idle and slated for demolition. As part of the overall demolition activities, the refinery units will be removed first, followed by demolition and removal of all concrete pads and aboveground foundations. The underground sewer and drainage system will then be decontaminated by pressure washing the interiors of piping and removed, any releases identified to subsurface soils within the refinery footprint will undergo corrective actions to meet applicable cleanup standards, and ultimately upon our submission and approval of a modified permit application, the WWTS will be decontaminated by pressure washing the interiors of tanks, separators, and piping and demolished. Demolition activities are tentatively scheduled to begin in the first quarter of 2013 and completed by the end of 2015.

During all demolition activities, a Storm Water Pollution Prevention Plan (SWPPP) will be implemented to control impacts to storm water runoff and to the WWTS, including dust control and control of construction debris. During demolition of the refinery area, any /rinsate residual fluids from refinery units, tanks, piping, vessels, and concrete within the process areas will be sent to the WWTS for treatment. Equipment requiring cleaning or decontamination prior to removal from the site will be washed at the wash rack and those wash waters will be sent to the 2-Cell Separator. Only pressurized water will be used for cleaning activities at the wash rack.

Measures will be required of the demolition contractor to protect the WWTS and FCP by covering/protecting catch basins within process areas during demolition activities. As part of obtaining a demolition permit for the site, the demolition contractor will be required to prepare and submit a storm water protection plan utilizing best management practices to protect the WWTS and FCP. In addition, the demolition contractor will be prevented from sending any fuel, hydrocarbon liquids, solids, or sediments to the WWTS or FCP during demolition activities.