pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

**Southeast Regional Office**
**CLEAN WATER PROGRAM**

| | | | |
|---|---|---|---|
| Application Type | **Renewal** | Application No. | **PA0011096** |
| Facility Type | **Industrial** | APS ID | **1069167** |
| Major / Minor | **Minor** | Authorization ID | **1406128** |

# NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | **Energy Transfer Marketing & Terminals L.P.** | Facility Name | **Marcus Hook Terminal** |
| Applicant Address | 100 Green Street<br>Marcus Hook, PA 19061 | Facility Address | 100 Green Street<br>Marcus Hook, PA 19061 |
| Applicant Contact | Kevin Smith | Facility Contact | Kevin Smith |
| Applicant Phone | (610) 859-1279 | Facility Phone | (610) 859-1279 |
| Client ID | 161585 | Site ID | 270459 |
| SIC Code | 4226 | Municipality | Marcus Hook Borough |
| SIC Description | Trans. & Utilities - Special Warehousing and Storage | County | Delaware |
| Date Application Received | August 2, 2022 | EPA Waived? | Yes |
| Date Application Accepted | | If No, Reason | |
| Purpose of Application | Permit Renewal | | |

## Summary of Review

The applicant requests renewal of an NPDES permit to discharge stormwater from Marcus Hook Terminal to Middle Creek and the Delaware River Estuary Zone 4 through various outfalls. Middle Creek discharges to the Delaware Estuary at a point below State Boundary.

The facility receives, stores, and fractionates natural gasoline (feedstock) as well as stores and transfers the two fractionation products, pentane (overheads product) and light naphtha (bottoms product). The products are shipped off-site via truck, pipeline, and/or barge.

The facility receives, stores, and fractionates a liquefied ethane (feedstock), as well as stores and transfers the fractionation products, ethane (bottoms product) and methane (overheads product). The ethane is shipped off-site via marine vessels and trucks. The methane is transferred to the facility's fuel gas system and combusted by the auxiliary boilers.

The facility receives, stores, and fractionates a liquefied C3+ transmix (feedstock) into export grade propane, mixed butane, and natural gasoline. All final products are shipped off-site via truck, pipeline or marine vessels.

The facility transports and provides terminalling services for ethane, propane, butane, crude oil, pentane, and gasoline components. The products are received at the facility via barge, rail car, pipeline, and /or truck and temporarily stored in bulk storage tanks and caverns to facilitate movements to other transportation systems.

The facility supports various operations with a series of utility systems.

| Approve | Deny | Signatures | Date |
|---|---|---|---|
| X | | *Sara Abraham*<br>Sara Reji Abraham, E.I.T. / Project Manager | December 5, 2022 |
| X | | *Pravin Patel*<br>Pravin C. Patel, P.E. / Environmental Engineer Manager | 12/05/2022 |

**Summary of Review**

Stormwater runoff from non-processing areas of the facility discharging through various outfalls is covered under this permit. Facility discharges all other wastewaters to DELCORA.

The majority of stormwater from the site is collected through a series of sumps. These sumps pump water to the process tanks – T 130 and T 131. When these tanks are full, water is pumped to T 101. Water from these tanks is sent to the API separators for pre-treatment before being sent to DELCORA.

No comments received from the Operations Section.

The following are the outfalls at the site:

Outfall 401: discharges stormwater from Tank 101 only during an emergency. During normal operations, there is no discharge. There was only one discharge event from Outfall 001 since the last permit renewal. Following existing parameters are continued to be monitored in the draft permit: Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus, pH, Zinc Total, Benzene, Total BTEX, MTBE and Acrolein.

Zinc Total, Benzene, Total BTEX, MTBE and Acrolein were included at the last renewal based on the sample results review. Historically the site was used as a refinery, and thereby a possibility of stormwater contamination; therefore, all current parameters are continued at this renewal.

Outfall 501: discharges off-site stormwater. Stormwater is from an enclosed stream coming from the surrounding community. No monitoring is required similar to the current permit.

Outfall 020: discharges off-site stormwater. Stormwater is from an 84" off-site stormwater conveyance system. Following existing parameters are continued to be monitored in the draft permit: Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus and pH. These parameters are consistent with the parameters on the stormwater module in the industrial waste application.

Outfalls 021, and 023 through 027: Discharge stormwater from the main office parking lot. Outfall 023 is required to be monitored as representative outfall. Requirements are similar to Outfall 020.

Total PCB concentration in the discharge is 1494 pg/l reported from 2021 sampling event. Existing PCB monitoring at Outfall 020 is continued. PCB PMP implementation requirement is included in Part C of the permit.

Cooling Water Intake Structures: Clean Water Act (316 b) requirement:

On August 15, 2014, EPA promulgated Clean Water Act Section 316(b) regulations applicable to cooling water intake structures. The regulations established best technology available (BTA) standards to reduce impingement mortality and entrainment of all life stages of fish and shellfish at existing power generating and manufacturing facilities. The Final Rule took effect on October 14, 2014. Regulations implementing the 2014 Final Rule (and the previously promulgated Phase I Rule) are provided in 40 CFR Part 125, Subparts I and J for new facilities and existing facilities, respectively. Associated NPDES permit application requirements for facilities with cooling water intake structures are provided in 40 CFR Part 122, Subpart B – Permit Application and Special NPDES Program Requirements (§ 122.21(r)).

*Applicability Criteria for Existing Facilities*

As an existing facility, Energy Transfer Marketing & Terminals L.P. (Energy Transfer) falls under 40 CFR part 125, Subpart J – Requirements Applicable to Cooling Water Intake Structures for Existing Facilities Under Section 316(b) of the Clean Water Act (§§ 125.90 – 125.99). Pursuant to the applicability criteria given by § 125.91(a), Energy Transfer would be subject to the requirements of §§ 125.94 – 125.99 if:

(1) The facility is a point source;

(2) The facility uses or proposes to use one or more cooling water intake structures with a cumulative design intake flow (DIF) of greater than 2 million gallons per day (mgd) to withdraw water from waters of the United States; and

(3) Twenty-five percent or more of the water the facility withdraws on an actual intake flow basis is used exclusively for cooling purposes.

**Summary of Review**

Energy Transfer operates a natural gas liquids storage and transfer facility in the Marcus Hook Terminal and owns the cooling water intake structure (CWIS) located on the Delaware Estuary. The CWIS (known as RW-7) provides non-contact cooling water (NCCW) and water used for non-cooling purposes to the facility and to Marcus Hook Generating Station (MHGS), which is an independently owned and operated power plant also located in the footprints of Marcus Hook Terminal. As an independent supplier of NCCW, Energy Transfer is subject to BTA requirements under the existing facilities rule.

RW-7 draws water from the Delaware Estuary through two 48-inch diameter downward facing pipes located approximately 550 feet from the shoreline at the end of a receiving dock. A six-sided polyethylene barrier net with 0.45-inch mesh is installed around the intake pipes and surrounding pilings. River water flows to the RW-7 building where it enters an intake basin with four coarse mesh traveling screens. Debris washed off the screen is removed and discarded. Water then flows into the pumping basin with four circulating water pumps (two owned by the applicant and two owned by MHGS). The intake has a 31.97 MGD DIF with an AIF of 5.90 MGD from 2019 through 2021.

Energy Transfer uses approximately 1.25 MGD of the withdrawn water. Most the water used at Energy Transfer is used to charge the fire water system and other non-cooling purposes, and approximately 0.2 MGD, or 3.4% of total AIF, is used for once through cooling of its #5 Cavern Driers. The rest of the water, 4.65 MGD, is supplied to MHGS. MHGS uses approximately 40% of supplied water exclusively for cooling purposes via a closed-cycle recirculating cooling system. The rest of the water at MHGS is used for non-cooling purposes. In total, approximately 43% of total AIF from RW-7 from 2019 through 2021 was used for cooling purposes.

A BTA decision for impingement mortality and entrainment was made for RW-7 in the MHGS permit PA0244449 effective 4/1/21 citing the operation of the closed-cycle cooling system and annual maintenance of the barrier net with a design through-screen velocity of <0.5fps. Continued use of the closed-cycle system at MHGS and an annually inspected and maintained barrier net at the intake, along with one year of entrainment sampling during the critical entrainment period will meet the required alternatives for impingement mortality and satisfy the site-specific entrainment standards based on required considerations discussed below.

1.) Numbers and types of organisms entrained

Entrainment sampling was conducted between March and July in 2019 and 2020. During that time samples were collected at RW-7 CWIS biweekly during 24-hour events, with four collections at approximately equal intervals encompassing two tidal cycles during day and night. Samples were withdrawn from the screen #3 pumping basin in the RW-7 building with typical sample filtering 100-101 cubic meters of intake water. Below is a table showing numbers and types of organisms collected during sampling.

**Summary of Review**

| Year - Lifestage | Taxa Collected | | | | | | | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Alewife | American eel | American shad | Atlantic Menhaden | Bay anchovy | Carps and minnows | Gizzard shad | Margined madtom | Morone spp | Naked goby | Striped bass | Summer Flounder | Tessellated darter | Unidentifiable Clupeidae | Unidentifiable fish | White perch | Yellow perch | |
| 2019 | | | | | | | | | | | | | | | | | | |
| EE | | | | | | | | | | | 1 | | | | 5 | 1 | | 7 |
| YL | 14 | | | | | | 16 | | | | | | 9 | | | 2 | 3 | 44 |
| PL | 15 | 3 | | | | 10 | 7 | | | | | | 27 | 55 | | 6 | | 123 |
| LL | | | | | | | | | | | | | | 52 | 23 | | 1 | 76 |
| JJ | | 1 | | | | | | 1 | | | | | | | | 1 | | 3 |
| 2020 | | | | | | | | | | | | | | | | | | |
| EE | | | | | | | | | | | | | | | | 1 | | 1 |
| YL | | | | | | 4 | 7 | | | | 1 | | 1 | | | 1 | | 14 |
| PL | | | 5 | 1 | 2 | 12 | | | 6 | 4 | 261 | | 10 | 88 | 2 | 4 | | 395 |
| LL | | 3 | | | | | | | 2 | | | | | | 151 | | | 156 |
| JJ | | | | 1 | 2 | | | | | | 1 | 1 | 1 | | | | | 6 |
| Total | 29 | 7 | 5 | 2 | 4 | 26 | 30 | 1 | 8 | 4 | 264 | 1 | 48 | 195 | 181 | 16 | 4 | 825 |

No federally listed threatened and endangered species were identified during the sampling effort. The most abundant taxa entrained during the study were Stripped Bass and Unidentifiable Clupeidae making up about 56% of the abundance. Other common taxa include Alewife, Gizzard Shad, Tessellated Darter, Unidentifiable Cyprinidae, and White Perch making up an additional 18% combined. Important commercial and recreational species found during the study include American eel (*Anguilla rostrate*) striped bass (*Morone saxatilis*), white perch (*Morone Americana*), and yellow perch (*Perca flavescens*).

**2.) Impact of changes in particulate emission or other pollutants**

The BTA of closed-cycle recirculating system is already installed at MHGS. Impacts to emissions or other pollutants was not evaluated for closed-cycle installation for the small portion of water used for cooling at Energy Transfer but is expected to be minimal.

**3.) Land Availability**

The BTA of closed-cycle recirculating system is already installed at MHGS. Land availability for closed-cycle installation for the small portion of water used for cooling at Energy Transfer was not evaluated.

**4.) Remaining useful plant life**

Permit application materials do not include an estimation of the remaining useful plant life and because BTA is already installed, it is not considered a factor in the BTA decision.

**5.) Social Benefits and Cost of Technologies**

R (10) report was not submitted. Because BTA is already installed, the facility is not expected to incur additional cost due to the BTA decision.

**Summary of Review**

**Services Comments**

In an email dated 8/30/22 the USFWS responded with no comments to offer and in an email dated 10/27/22 the PAFBC indicated no significant concerns considering no State or Federally listed species were entrained in the studies. PAFBC also appreciated the DEP's willingness to require the collection of entrainment data to make informed decisions.

**Conclusions**

The reductions in entrainment already provided by the closed cycle recirculating cooling system along with the annually maintained barrier net with design through screen velocities <0.5 fps satisfy both impingement mortality and entrainment BTA. The types of organisms observed during the 2019 to 2020 entrainment study are representative of the expected fish community at seemingly minimal numbers. As stated, no federally listed threatened and endangered species were identified during the sampling effort. One year of entrainment sampling during this permit cycle, completed before 2026, will inform future MHGS and Energy Transfer BTA decisions and continue to evaluate any impacts to Atlantic Sturgeon in designated critical habitat.

Cooling water intake requirements are included in Part C of the permit.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Act 14 Notifications:

| | | |
|---|---|---|
| Marcus Hook Borough | - | June 30, 2022 |
| Lower Chichester Township | - | June 30, 2022 |
| Delaware County | - | June 28, 2022 |

Permit Conditions:

A. Acquire Necessary Property Rights
B. Proper Sludge Disposal
C. WQM Permit Requirement
D. BAT/ELG Reopener
E. Stormwater Requirements
F. Cooling Water Intake Requirements
G. PCB/PMP Requirements

**Discharge, and Receiving Waters Information**

| | | | |
|---|---|---|---|
| Outfall No. | 501 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 33.98" | Longitude | -75º 25' 32.12" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Off-site stormwater | | |
| Receiving Waters | Middle Creek | Stream Code | 00509 |
| NHD Com ID | 25602837 | RMI | 0.378 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF |

| | | | |
|---|---|---|---|
| Outfall No. | 401 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 34.03" | Longitude | -75º 25' 32.01" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater during emergency discharge from Tank 101 | | |
| Receiving Waters | Middle Creek | Stream Code | 00509 |
| NHD Com ID | 25602837 | RMI | 0.416 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF |

| | | | |
|---|---|---|---|
| Outfall No. | 020 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 38.51" | Longitude | -75º 25' 27.41" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater from 84” off-site stormwater conveyance system | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602837 | RMI | 79.36 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF |

| | | | |
|---|---|---|---|
| Outfall No. | 021 | Design Flow (MGD) | 0 |

| | | | |
|---|---|---|---|
| Latitude | 39º 48' 27.40" | Longitude | -75º 24' 41.22" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602819 | RMI | 78.64 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF, MF |

| | | | |
|---|---|---|---|
| Outfall No. | 023 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 28.00" | Longitude | -75º 24' 40.02" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602819 | RMI | 78.64 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF, MF |

| | | | |
|---|---|---|---|
| Outfall No. | 024 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 29.79" | Longitude | -75º 24' 36.41" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602819 | RMI | 78.64 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF, MF |

| | | | |
|---|---|---|---|
| Outfall No. | 025 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 30.79" | Longitude | -75º 24' 34.41" |

| | | | |
|---|---|---|---|
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602819 | RMI | 78.64 |

| | | | |
|---|---|---|---|
| Outfall No. | 026 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 31.78" | Longitude | -75º 24' 32.41" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602819 | RMI | 78.64 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF, MF |

| | | | |
|---|---|---|---|
| Outfall No. | 027 | Design Flow (MGD) | 0 |
| Latitude | 39º 48' 34.96" | Longitude | -75º 24' 26.31" |
| Quad Name | Marcus Hook | Quad Code | 09-22-3 |
| Wastewater Description: | Stormwater runoff from main office parking lot | | |
| Receiving Waters | Delaware River Estuary Zone 4 | Stream Code | 00002 |
| NHD Com ID | 25602833 | RMI | 78.64 |
| Watershed No. | 3-G | Chapter 93 Class. | WWF, MF |

## Compliance History

**DMR Data for Outfall 020 (from August 1, 2021 to July 31, 2022)**

| Parameter | JUL-22 | JUN-22 | MAY-22 | APR-22 | MAR-22 | FEB-22 | JAN-22 | DEC-21 | NOV-21 | OCT-21 | SEP-21 | AUG-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH (S.U.) Daily Maximum | | 7.6 | | | | | | 7.9 | | | | |
| BOD5 (mg/L) Daily Maximum | | < 2.0 | | | | | | 4.2 | | | | |
| COD (mg/L) Daily Maximum | | < 25 | | | | | | 51 | | | | |
| TSS (mg/L) Daily Maximum | | 5.6 | | | | | | 21 | | | | |
| Oil and Grease (mg/L) Daily Maximum | | < 1.5 | | | | | | < 1.5 | | | | |
| Total Nitrogen (mg/L) Daily Maximum | | < 1.1 | | | | | | 2.3 | | | | |
| Total Phosphorus (mg/L) Daily Maximum | | 0.1 | | | | | | 0.13 | | | | |
| PCBs (Wet Weather) (pg/L) Daily Maximum | | | | | | | | 4089.8 | | | | |

**DMR Data for Outfall 023 (from August 1, 2021 to July 31, 2022)**

| Parameter | JUL-22 | JUN-22 | MAY-22 | APR-22 | MAR-22 | FEB-22 | JAN-22 | DEC-21 | NOV-21 | OCT-21 | SEP-21 | AUG-21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH (S.U.) Daily Maximum | | 6.0 | | | | | | 8.1 | | | | |
| BOD5 (mg/L) Daily Maximum | | < 2.0 | | | | | | 1.8 | | | | |
| COD (mg/L) Daily Maximum | | 27 | | | | | | 41 | | | | |
| TSS (mg/L) Daily Maximum | | 1.7 | | | | | | 18 | | | | |
| Oil and Grease (mg/L) Daily Maximum | | < 1.8 | | | | | | < 1.5 | | | | |
| Total Nitrogen (mg/L) Daily Maximum | | 6.0 | | | | | | 2 | | | | |
| Total Phosphorus (mg/L) Daily Maximum | | < 0.1 | | | | | | 0.093 | | | | |

## Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 020, Effective Period: Permit Effective Date through Permit Expiration Date**.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Biochemical Oxygen Demand (BOD5) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Chemical Oxygen Demand (COD) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Suspended Solids | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Oil and Grease | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Nitrogen | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Phosphorus | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| PCBs Wet Weather Analysis (pg/L) | XXX | XXX | XXX | XXX | Report | XXX | 1/year | Grab |

**Proposed Effluent Limitations and Monitoring Requirements**

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 023, Effective Period: Permit Effective Date through Permit Expiration Date**.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Biochemical Oxygen Demand (BOD5) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Chemical Oxygen Demand (COD) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Suspended Solids | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Oil and Grease | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Nitrogen | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Phosphorus | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |

## Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

**Outfall 401, Effective Period: Permit Effective Date through Permit Expiration Date**.

| Parameter | Effluent Limitations | | | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Mass Units (lbs/day) (1) | | Concentrations (mg/L) | | | | Minimum (2) Measurement Frequency | Required Sample Type |
| | Average Monthly | Average Weekly | Minimum | Average Monthly | Daily Maximum | Instant. Maximum | | |
| pH (S.U.) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Biochemical Oxygen Demand (BOD5) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Chemical Oxygen Demand (COD) | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Suspended Solids | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Oil and Grease | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Nitrogen | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Total Phosphorus | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Zinc, Total | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Acrolein | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| Benzene | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| BTEX, Total | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |
| MTBE | XXX | XXX | XXX | XXX | Report | XXX | 1/6 months | Grab |