

# Southeast Regional Office CLEAN WATER PROGRAM

 Application Type
 Renewal

 Facility Type
 Storm Water

 Major / Minor
 Minor

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

Application No. PA0244708

APS ID 1028163

Authorization ID 1335636

Applicant Name	Kinder Morgan Bulk Terminal, Inc.	Facility Name	Kinder Morgan Fairless Hills Facility
Applicant Address	1000 South Port Road	Facility Address	1000 South Port Road
	Fairless Hills, PA 19030		Fairless Hills, PA 19030
Applicant Contact	Clifford Hagy	Facility Contact	Gregg Harnett
Applicant Phone	(775) 385-5659	Facility Phone	(267) 934-4745
Client ID	237721	Site ID	549200
SIC Code	4491	Municipality	Falls Township
SIC Description	Trans. & Utilities - Marine Cargo Handling	County	Bucks
Date Application Rec	eived December 3, 2020	EPA Waived?	Yes
Date Application Acc	epted	If No, Reason	

#### **Summary of Review**

Permittee has submitted application for renewal of NPDES permit for discharge of stormwater from Kinder Morgan Fairless Hills Facility (Marine Bulk Terminal) into Delaware River.

In the past, Kinder Morgan Fairless Hills Facility has operated under a multi sector General Stormwater Permit PAR800078 and had applied for an Individual NPDES Permit application during last permit renewal. It was determined by the Department that this facility would be more effectively regulated under Individual NPDES permit rather than General Stormwater Permit because of the complex nature of operations at the facility and various materials being stored and managed at the facility such as coal and salt. Stormwater from the facility is being discharged to Delaware River through Outfall 001 and Outfall 002. Outfall 003, which was previously included in the General Permit PAR800078, no longer discharges from the facility and has been blocked off by a concrete plug. The plugged outfall is inspected monthly by maintenance manager to ensure that there is no discharge.

The Kinder Morgan Fairless Hills Facility is a marine cargo handling terminal located along the Delaware River in the US Steel Industrial Park in Fairless Hills, PA. The terminal has four docks that are used to load and unload products from vessel and barges. The terminal consists of maintenance shop, pave and unpaved uncovered storage areas, containerized drum storage, office area, two warehouses, fertilizer system, one six-million gallons Uria Ammonia Nitrate (UAN) solution liquid tank, four (4) dry fertilizer domes. The facility stores various bulk and break-bulk products for off-site distribution. These materials are transferred by various pieces of equipment on the terminal. Equipment includes mobile harbor cranes, mobile gantry cranes, portable stacker conveyers, mobile and fixed conveyers, front end loaders, hoppers, bulldozer, dump trucks, flatbed trucks, forklifts, rail cars, and locomotives. Materials handled at the facility include but not limited to coal, bauxite, salt, fertilizers, pumice, aggregates, project cargos and metal products. Products are imported and exported by vessel, rail car and truck. Storage onsite includes four (4) dry fertilizer domes, one (1) UAN liquid tank, salt stockpiles, two (2) warehouses, and various open storage locations on approximately 103 acres. Oil products related to the maintenance and operation of the facility are stored in above ground storage tanks, drums, and containers.

Approve	Deny	Signatures	Date
X		Ketan Thaker	
		Ketan Thaker / Project Manager	October 19, 2021
X		Pravin Patel	
		Pravin C. Patel, P.E. / Environmental Engineer Manager	10/19/2021

#### **Summary of Review**

Due to nature of Kinder Morgan's business, the facility is subject to various appendices of the General Permit which will help identify specific monitoring requirements and Best Management Practices (BMPs) under Individual Permit.

Kinder Morgan implements Best Management Practices (BMPs) related to different appendices. It also implements BMPs such as changing and maintaining storm drain filters on a monthly basis, cleaning areas around storm drains, using a vac truck to clean out drains and installing berms around certain drains.

Pilot Study Program for pH adjustment and Solids Settling:

Kinder Morgan conducted the Pilot Study Program to effectively treat stormwater contaminated with fly ash. The stormwater at the terminal is contaminated with elevated Total Suspended Solids (TSS) due to fly ash stored in the ore basin. The Pilot Study Program was approved by Department to evaluate the most efficient way to handle stormwater associated with fly ash which expired on May 31, 2015. The Pilot Study included pumping of stormwater out of ore basin and into the ore trough after a rain event. Once enough wastewater had been accumulated into ore trough, it would be treated by a UNIPURE portable water treatment system prior to discharge to the Delaware River through Outfall 001. The Unipure water treatment system included pH neutralization, a clarifier, and a bag filter. Kinder Morgan has reconfigured the Ore Basin and Ore Trough fronting it to act as a coal contact water retention area and a treatment area in place of portable equipment from Unipure in late 2013. The facility is utilizing this set up as a permanent method for managing coal contact stormwater at this time.

The effluent limits for are based on Chapter 25 Pa Code 92a.47, 95.10(d), BPJ, DRBC regulations for Zone 2 and General Permit PAG03, Appendix E from old PAG-03 for Coal Storage Pile Runoff, Appendix K for Salt Storage and Distribution Piles and Appendix L for transportation Facility and storage of various materials.

#### Following are the effluent limitations:

Parameter	Concentrations (mg/l) Av. Monthly
рН	6.0 – 9.0 SU at all times
BOD5	Report
Total Suspended Solids	50
Chromium	Report
Total Dissolved Solids	2,000 mg/l
Osmotic Pressure (mOs/kg)	Report
Oil and Grease	15
Nitrate-Nitrite as N	Report
Total Kjeldahl Nitrogen	Report
Total Phosphorus	2.0
Free Available Cyanide	Report
Chloride	Report
Chemical Oxygen Demand	Report
Total Iron	Report
Total Aluminum	Report
Total Zinc	Report
Total Copper	Report
Total Lead	Report
Total Cyanide	Report
Conductivity (µmhos/cm)	Report

Based on the e-DMR data, the facility had several violations for TSS, and elevated effluent results for TDS in the past. It appears from the recent eDMR data, effluent results are better than before. We have included monitoring requirements for Chromium in the permit renewal as facility will be storing and suppling chromium Ore for new facility named M. M. Metals. The previous permit had TDS monitoring requirement with condition that "If the annual average daily TDS load is found to exceed 5,000 pounds per day, the facility shall be subject to the treatment requirements contained in 25 Pa Code 95.10(c)." We have included effluent limit of 2000 mg/l for Total Dissolved Solids based on few elevated effluent results for TDS in the last few years. The permittee is required to modify Best Management Practices (BMPs), structural or non-structural, and an associated schedule for BMP implementation and conformance with 2,000 mg/l as an monthly average concentration limit or

#### **Summary of Review**

otherwise obtain a variance from the treatment requirements as per the provisions of 25 Pa. Code 95.10(d). If a less stringent loading or concentration limit for TDS approved under a variance, the new requirements will be included into new or amended permit. We have also included Benchmark values for COD and Chlorides in the Part C condition for this permit renewal.

Act 14 Notification to Falls Township – November 19, 2020 Act 14 Notification to Bucks County – November 19, 2020

#### **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.

Discharge, Receiving Water	s and Water Supply Inforn	nation	
Outfall No. 001  Latitude 40º 8' 13.65  Quad Name  Wastewater Description:	5" Stormwater	Design Flow (MGD) Longitude Quad Code	0 -74º 45' 17.42"
NHD Com ID 25486 Drainage Area		O Boois	00002
Elevation (ft)  Watershed No. 2-E  Existing Use		Slope (ft/ft) Chapter 93 Class. Existing Use Qualifier	WWF, MF
Exceptions to Use Assessment Status Cause(s) of Impairment Source(s) of Impairment TMDL Status	Impaired POLYCHLORINATED BIF SOURCE UNKNOWN Final	PHENYLS (PCBS),	over Estuary DCR TMDI e
Background/Ambient Data pH (SU) Temperature (°F) Hardness (mg/L) Other:		Data Source	iver Estuary PCB TMDLs
Nearest Downstream Publi PWS Waters PWS RMI	c Water Supply Intake	Flow at Intake (cfs) Distance from Outfall (mi)	

#### NPDES Permit No. PA0244708

	Design Flow (MGD)	0				
	Longitude	-74º 45' 5.40"				
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tormwater						
Divor (MANT ME)	Ctroom Codo	00002				
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	ENYLS (PCBS)					
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inal	Name Delaware R	ver Estuary PCB TMDLs				
	Data Source					
	e River (WWF, MF)  0  npaired  OLYCHLORINATED BIPH  OURCE UNKNOWN  inal	Quad Code  tormwater  Pe River (WWF, MF)  Pe R				

# **Compliance History**

# DMR Data for Outfall 001 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
Flow (GPD)	791219.	996060.	21891.4		101638.	132912.	156367.	31273.4	84438.4	153240.	192331.	140730.
Average Monthly	16	48	4	25018	82	31	42	8	1	07	93	68
pH (S.U.)												
Instantaneous												
Minimum	6.7	7.3	7.4	7.9	6.8	7.2	7.9	7.7	7.5	7.5	7.9	7.6
pH (S.U.)												
Instantaneous												
Maximum	6.7	7.3	7.4	7.9	6.8	7.2	7.9	7.7	7.5	7.5	7.9	7.6
Conductivity												
(µmhos/cm)												
Average Monthly	1.57	1.57	1.47	1.92	1.72	1.52	1.04	0.2	0.14	0.12	1.91	1.26
Conductivity												
(µmhos/cm)												
Daily Maximum	1.57	1.57	1.47	1.92	1.72	1.52	1.04	0.2	0.14	0.12	1.91	1.26
BOD5 (lbs/day)												
Average Monthly			< 2.0			< 2.0			3.58			< 2.0
BOD5 (lbs/day)												
Daily Maximum			< 2.0			< 2.0			3.58			< 2.0
BOD5 (mg/L)												
Average Monthly			< 2.0			< 2.0			2.8			< 2.0
BOD5 (mg/L)												
Daily Maximum			< 2.0			< 2.0			2.8			< 2.0
COD (lbs/day)												
Average Monthly			< 15			24.39			< 15			< 15
COD (lbs/day)												
Daily Maximum			< 15			24.39			< 15			< 15
COD (mg/L)												
Average Monthly			< 15			22			< 15			< 15
COD (mg/L)												
Daily Maximum			< 15			22			< 15			< 15
TSS (lbs/day)												
Average Monthly	92.38	83.07	2.19	5.22	20.34	24.393	46.95	< 5	< 5	10.22	44.91	30.52
TSS (lbs/day)												
Daily Maximum	9238	83.07	2.19	5.22	20.34	24.39	46.95	< 5	< 5	10.22	44.91	30.52
TSS (mg/L)								_	_	_		
Daily Maximum	14	10	12.00	25.00	24.00	22.00	36.00	< 5	< 5	8	28.00	26.00

	Ι	Ι		Ι	ı	Ι			Ι	ı		
Total Dissolved Solids												
(lbs/day)												
Annual Average									167.75			
Total Dissolved Solids												
(lbs/day)												
Average Monthly	2705.49	3239.79	80.70	369.32	1525.80	1984.19	2464.76	30.78	100	196.82	234.19	253.52
Total Dissolved Solids												
(lbs/day)												
Annual Average	1517.52	1157.36	635.084	641.58	499.02	384.94	245.685	123.00	167.75	242.76	264.986	298.51
Total Dissolved Solids												
(mg/L)												
Average Monthly	1.57	390	442.00	1770.00	1800.00	1790.00	1890	118.00	142	154.00	146.00	216.00
Osmotic Pressure												
(mOs/kg)												
Average Monthly	< 10	16	10	56.00	54.00	< 10	53.00	< 10	< 10	< 10	< 10	14
Osmotic Pressure												
(mOs/kg)												
Daily Maximum	< 10	16	10	56.00	54.00	< 10	53.00	< 10	< 10	< 10	< 10	14
Oil and Grease (mg/L)												
Average Monthly	< 4.1	< 4	< 4.1	< 4.5	< 4.2	< 4.3	< 4.2	< 4.3	< 4.3	< 4.4	< 4.6	< 4.6
Oil and Grease (mg/L)												
Daily Maximum	< 4.1	< 4	< 4.1	< 4.5	< 4.2	< 4.3	< 4.2	< 4.3	< 4.3	< 4.4	< 4.6	< 4.6
Nitrate-Nitrite (lbs/day)												
Average Monthly			0.16			1.88			0.64			1.81
Nitrate-Nitrite (lbs/day)												
Daily Maximum			0.16			1.88			0.64			1.81
Nitrate-Nitrite (mg/L)												
Average Monthly			0.90			1.70			0.50			1.3
Nitrate-Nitrite (mg/L)												
Daily Maximum			0.90			1.70			0.50			1.3
TKN (lbs/day)												
Average Monthly			0.13			0.55			0.77			0.7
TKN (lbs/day)												
Daily Maximum			0.13			0.55			0.77			0.7
TKN (mg/L)												
Average Monthly			0.70			0.5			0.60			0.5
TKN (mg/L)												
Daily Maximum			0.70			0.5			0.60			0.5
Total Phosphorus												
(lbs/day)												
Average Monthly			< 0.10			0.16			< 0.10			< 0.10
Total Phosphorus												
(lbs/day)												
Daily Maximum			< 0.10			0.16			< 0.10			< 0.10

Total Phosphorus												
(mg/L)												
Average Monthly			< 0.10			0.14			< 0.10			< 0.10
Total Phosphorus												
(mg/L)												
Daily Maximum			< 0.10			0.14			0.10			< 0.10
Total Aluminum												
(mg/L)												
Average Monthly			0.11			0.18			< 0.050			0.26
Total Aluminum												
(mg/L)												
Daily Maximum			0.11			0.18			< 0.050			0.26
Total Copper (mg/L)												
Average Monthly			0.005			0.0086			< 0.0025			0.013
Total Copper (mg/L)												
Daily Maximum			0.005			0.0086			< 0.0025			0.013
Free Cyanide (mg/L)									<	<	<	<
Average Monthly	0.0024	< 0.0017	< 0.002	0.0066	0.0083	12.00	0.0024	< 0.0017	0.00091	0.00091	0.00091	0.00091
Free Cyanide (mg/L)									<	<	<	<
Daily Maximum	0.0024	< 0.0017	< 0.002	0.0066	0.0083	12.00	0.0024	< 0.0017	0.00091	0.00091	0.00091	0.00091
Total Cyanide (mg/L)												
Average Monthly			0.05			0.1			0.002			0.016
Total Cyanide (mg/L)												
Daily Maximum			0.05			0.1			0.002			0.016
Total Iron (mg/L)												
Average Monthly			0.29			0.52			0.10			0.8
Total Iron (mg/L)												
Daily Maximum			0.29			0.52			0.10			0.8
Total Lead (mg/L)												
Average Monthly			0.0042			0.0055			< 0.0010			0.0064
Total Lead (mg/L)												
Daily Maximum			0.0042			0.0055			< 0.0010			0.0064
Total Zinc (mg/L)												
Average Monthly			0.022			0.02			0.0057			0.03
Total Zinc (mg/L)												
Daily Maximum			0.022			0.02			0.0057			0.03
Chloride (lbs/day)												
Average Monthly		<u> </u>	29.21			1296.93			16.10			47.72
Chloride (lbs/day)												
Daily Maximum			29.21			1296.93			16.10			47.72
Chloride (mg/L)												
Average Monthly			160.00			1170.0			12.60			34.20
Chloride (mg/L)												
Daily Maximum			160.00			1170.0			12.60			34.20

DMR Data for Outfall 002 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
Flow (GPD)	6132161	7719736	169664.	193902.	787728.	1030106	1211889	242377.	654420.	1187651	1490624	1090700
Average Monthly	.38	.75	54	34	24	.16	.6	92	38	.81	.21	.64
pH (S.U.)												
Instantaneous												
Minimum	7.2	7.9	6.4	6.6	7.9	6.9	8.1	8.0	7.9	7.9	7.2	7.1
pH (S.U.)												
Instantaneous												
Maximum	7.2	7.9	6.4	6.6	7.9	6.9	8.1	8.0	7.9	7.9	7.2	7.1
Conductivity												
(µmhos/cm)												
Average Monthly	2.37	2.10	2.20	1.22	2.11	1.7	1.21	0.12	0.1	0.94	2.86	1.7
Conductivity												
(µmhos/cm)												
Daily Maximum	2.37	2.10	2.20	1.22	2.11	1.7	1.21	0.12	0.1	0.94	2.86	1.7
BOD5 (lbs/day)												
Average Monthly			< 2.0			< 2.0			31.70			< 2.0
BOD5 (lbs/day)												
Daily Maximum			< 2.0			< 2.0			31.70			< 2.0
BOD5 (mg/L)												
Average Monthly			< 2.0			< 2.0			3.2			< 2.0
BOD5 (mg/L)												
Daily Maximum			< 2.0			< 2.0			3.2			< 2.0
COD (lbs/day)												
Average Monthly			< 15			515.47			< 15			< 15
COD (lbs/day)												
Daily Maximum			< 15			515.47			< 15			< 15
COD (mg/L)												
Average Monthly			< 15			60.00			< 15			< 15
COD (mg/L)												
Daily Maximum			< 15			60.00			< 15			< 15
TSS (lbs/day)												
Average Monthly	1073.99	386.30	12.74	9.70	91.98	94.50	151.61	22.24	70.95	99.05	422.68	272.89
TSS (lbs/day)												
Daily Maximum	1073.99	386.30	12.74	9.70	91.98	94.50	151.61	22.24	70.95	99.05	422.68	272.89
TSS (mg/L)												
Daily Maximum	21	6	9.00	6.00	14.00	11.00	15.00	11	13	10	34.00	30.00
Total Dissolved Solids												
(lbs/day)												
Annual Average									2126.39			
Total Dissolved Solids												
(lbs/day)	15751.8	19057.2			12810.8	17353.9	17889.6			15550.8		
Total Monthly	1	5	432.99	3040.23	2	9	7	3577.93	8241.38	8	1765.32	1582.78

Total Dissolved Solids												
(lbs/day)	17380.3											
Annual Average	6	13410.3	7434.05	7736.42	6515.46	5383.74	4115.29	2884.74	2126.39	1679.50	825.342	689.32
Total Dissolved Solids	Ū	10110.0	7 10 1100	7700.12	0010110	0000.11	1110.20	200	2120.00	1010.00	020.012	000.02
(mg/L)												
Average Monthly	308	296	306.00	1880.00	1950.00	2020.00	1770.00	1770.00	1510	1570.00	142.00	174.00
Osmotic Pressure												
(mOs/kg)												
Average Monthly	< 10	< 10	< 10	64.00	60.00	61.00	61.00	52	56	57.00	< 10	< 10
Osmotic Pressure												
(mOs/kg)												
Daily Maximum	< 10	< 10	< 10	64.00	60.00	61.00	61.00	52	56	57.00	< 10	< 10
Oil and Grease (mg/L)												
Average Monthly	< 4.7	< 4.1	< 4.1	< 4.1	< 4.7	< 4.2	< 4.1	< 4.6	< 4.4	< 4.2	< 4.1	< 4.5
Oil and Grease (mg/L)												
Daily Maximum `	< 4.7	< 4.1	< 4.1	< 4.1	< 4.7	< 4.2	< 4.1	< 4.6	< 4.4	< 4.2	< 4.1	< 4.5
Nitrate-Nitrite (lbs/day)												
Average Monthly			1.27			9.45			7.43			8.11
Nitrate-Nitrite (lbs/day)												
Daily Maximum			1.27			9.45			7.43			8.11
Nitrate-Nitrite (mg/L)												
Average Monthly			0.90			1.10			0.75			0.75
Nitrate-Nitrite (mg/L)												
Daily Maximum			0.90			1.10			0.75			0.75
TKN (lbs/day)												
Average Monthly			0.57			3.44			5.94			5.41
TKN (lbs/day)												
Daily Maximum			0.57			3.44			5.94			5.41
TKN (mg/L)												
Average Monthly			0.40			0.4			0.60			0.5
TKN (mg/L)												
Daily Maximum			0.40			0.4			0.60			0.5
Total Phosphorus												
(lbs/day)												
Average Monthly			< 0.10			< 0.1			< 0.10			3.03
Total Phosphorus												
(lbs/day)			0.46						0.46			
Daily Maximum			< 0.10			< 0.1			< 0.10			3.03
Total Phosphorus												
(mg/L)			0.10			6.4			0.40			0.00
Average Monthly			< 0.10			< 0.1			< 0.10			0.28
Total Phosphorus												
(mg/L)			.0.40			.04			.0.40			0.00
Daily Maximum	1		< 0.10			< 0.1			< 0.10			0.28

#### NPDES Permit No. PA0244708

Total Aluminum												
(mg/L)			0.0810			< 0.050			0.15			0.43
Average Monthly Total Aluminum			0.0810			< 0.050			0.15			0.43
(mg/L) Daily Maximum			0.0810			< 0.050			0.15			0.43
Total Copper (mg/L)			0.0010			< 0.000			0.13			0.40
Average Monthly			< 0.005			0.0063			0.0065			0.014
Total Copper (mg/L)			10.000			0.0000			0.0000			0.011
Daily Maximum			< 0.005			0.0063			0.0065			0.014
Free Cyanide (mg/L)									<		<	<
Average Monthly	< 0.002	< 0.0017	< 0.002	0.0026	0.0029	6.8	0.0035	< 0.0017	0.00091	0.0019	0.00091	0.00091
Free Cyanide (mg/L)									<		<	<
Daily Maximum	< 0.002	< 0.0017	< 0.002	0.0026	0.0029	6.8	0.0035	< 0.0017	0.00091	0.0019	0.00091	0.00091
Total Cyanide (mg/L)												
Average Monthly			0.04			0.07			0.0930			0.0084
Total Cyanide (mg/L)												
Daily Maximum			0.04			0.07			0.0930			0.0084
Total Iron (mg/L)												
Average Monthly			0.2300			0.0430			0.62			1
Total Iron (mg/L)												
Daily Maximum			0.2300			0.0430			0.62			1
Total Lead (mg/L)			0.0000			0.0040			0.0040			0.0004
Average Monthly			< 0.0030			< 0.0010			0.0049			0.0064
Total Lead (mg/L) Daily Maximum			< 0.0030			< 0.0010			0.0049			0.0064
Total Zinc (mg/L)			< 0.0030			< 0.0010			0.0049			0.0064
Average Monthly			0.0130			0.0032			0.0190			0.036
Total Zinc (mg/L)			0.0100			0.0002			0.0100			0.000
Daily Maximum			0.130			0.0032			0.0190			0.036
Chloride (lbs/day)			01100			10910.6			010100			31333
Average Monthly			129.76			8			9271.10			72.46
Chloride (lbs/day)						10910.6						
Daily Maximum			129.76			8			9271.10			72.46
Chloride (mg/L)										_		
Average Monthly			91.70			1270.00			936.00			6.70
Chloride (mg/L)												
Daily Maximum			91.70			1270.00			936.00			6.70

#### **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 001, Effective Period: Permit Effective Date through Permit Expiration Date.

			Effluent L	imitations			Monitoring Red	quirements
Parameter	Mass Units	(lbs/day) (1)		Concentrat	ions (mg/L)		Minimum <sup>(2)</sup>	Required
r ai ailletei	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (GPD)	Report Avg Mo	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/month	Grab
Conductivity (µmhos/cm)	XXX	XXX	XXX	Report	Report	XXX	See Permit	Metered
BOD5	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
COD	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
TSS	Report Avg Mo	Report	XXX	XXX	50.0	XXX	2/month	Grab
Total Dissolved Solids	Report Avg Mo	XXX	XXX	2000.0	XXX	XXX	2/month	Grab
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15	30	XXX	2/month	Grab
Nitrate-Nitrite	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
TKN	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Phosphorus	Report	Report	XXX	2.0 Avg Qrtly	4.0	XXX	1/quarter	Grab

# Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter		Monitoring Requirements						
	Mass Units (lbs/day) (1)			Concentra	Minimum (2)	Required		
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Total Aluminum	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Chromium	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Copper	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Free Cyanide	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Cyanide	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Lead	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Zinc	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Chloride	XXX	XXX	XXX	Report	Report	XXX	2/month	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 002, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter		Monitoring Requirements						
	Mass Units (lbs/day) (1)			Concentrat	Minimum <sup>(2)</sup>	Required		
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (GPD)	Report Avg Mo	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/month	Grab
Conductivity (µmhos/cm)	XXX	XXX	XXX	Report	Report	XXX	See Permit	Metered
BOD5	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
COD	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
TSS	Report Avg Mo	Report	XXX	XXX	50.0	XXX	2/month	Grab
Total Dissolved Solids	Report Total Mo	XXX	XXX	2000.0	XXX	XXX	2/month	Grab
Osmotic Pressure (mOs/kg)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15	30	XXX	2/month	Grab
Nitrate-Nitrite	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
TKN	Report	Report	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Phosphorus	Report	Report	XXX	2.0 Avg Qrtly	4.0	XXX	1/quarter	Grab
Total Aluminum	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Chromium	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab

# Outfall 002, Continued (from Permit Effective Date through Permit Expiration Date)

		Monitoring Requirements						
Parameter	Mass Units (lbs/day) (1)			Concentrat	Minimum <sup>(2)</sup>	Required		
	Average Quarterly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Total Copper	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Free Cyanide	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total Cyanide	xxx	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Lead	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Total Zinc	XXX	XXX	XXX	Report Avg Qrtly	Report	XXX	1/quarter	Grab
Chloride	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab