pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0009270**
Facility Type	**Industrial**	APS ID	**1085420**
Major / Minor	**Minor**	Authorization ID	**1434367**

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

Applicant and Facility Information

Applicant Name	**Post Consumer Brands, Inc.**	Facility Name	**Post Consumer Brands Bloomsburg Plant**
Applicant Address	20802 Kensington Boulevard	Facility Address	6670 Lowe Street
	Lakeville, MN 55044-8052		Bloomsburg, PA 17815-8613
Applicant Contact	Karen Wojtowicz	Facility Contact	Karen Wojtowicz
Applicant Phone	(570) 380-1966	Facility Phone	(570) 380-1966
Client ID	376297	Site ID	2828
SIC Code	2047	Municipality	South Centre Township
SIC Description	Manufacturing - Dog And Cat Food	County	Columbia
Date Application Received	April 3, 2023	EPA Waived?	No
Date Application Accepted	April 10, 2023	If No, Reason	Significant CB Discharge
Purpose of Application	Renewal and Transfer of a NPDES Permit		

Summary of Review

The subject facility produces pet foods in South Centre Township, Columbia County. This NPDES permit and associated WQM Permit No. 1908201 Amendment No. 6 will be transferred to Post Consumer Brands, Inc. from Big Heart Pet Brands, Inc. upon final issuance of this NPDES 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.

Approve	Deny	Signatures	Date
✓		Keith C. Allison / Project Manager	January 23, 2024
✓		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	January 23, 2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.5
Latitude	41º 1' 11.52"	Longitude	-76º 20' 42.84"
Quad Name	Mifflinville, Pa	Quad Code	
Wastewater Description:	Effluent		
Receiving Waters	Susquehanna River (WWF)	Stream Code	6685
NHD Com ID	65640027	RMI	154.66
Drainage Area	10544	Yield (cfs/mi^2)	0.09982
Q_{7-10} Flow (cfs)	1052	Q_{7-10} Basis	USGS Gage 01540500, Susquehanna River @ Danville (1981-2008)
Elevation (ft)	460	Slope (ft/ft)	0.00023
Watershed No.	5-D	Chapter 93 Class.	WWF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	MERCURY, POLYCHLORINATED BIPHENYLS (PCBS), Siltation, Aluminum, Iron		
Source(s) of Impairment	SOURCE UNKNOWN, Agriculture, AMD		
TMDL Status	Final	Name	Susquehanna River PCB
Nearest Downstream Public Water Supply Intake	Danville Municipal Water Authority		
PWS Waters	Susquehanna River	Distance from Outfall (mi)	Approx. 17

Changes Since Last Permit Issuance: None. The above stream and drainage characteristics were determined for previous reviews and they remain applicable.

Other Comments: The facility is not identified as a significant discharger in the River PCB TMDL and, due to the nature of the facility, it is not expected to be a contributor to the impairment by Mercury and PCBs identified above.

This discharge is also not expected to be contributing to the impairment to the river for sediment because it consistently meets its TSS limitations.

Due to the impairment for Aluminum and Iron, annual monitoring will be included for each of these in the 001 discharge to verify the discharge does not contribute to the impairment.

The discharge is not expected at this time to impact any downstream water supply with the effluent limitations and monitoring proposed.

Treatment Facility Summary

Treatment Facility Name: Post Consumer Brands

WQM Permit No.	Issuance Date	Permit Covered:
1908201	Original - 1/27/09	Reducing lagoon from 8 to 3.75 MG
	A-2 - 12/6/10	Replacement of rotary screen and DAF with new chemical feeds
	A-3 – 7/9/13	Replacement of EQ tank
	A-4 – 3/31/14	New chlorination system
	Transfer - 4/24/14	Transfer
	A-5 – 9/14/17	Replacement of Floating Aerators with Venturi Aerators
	A-6 – 12/3/18	Significant modifications to the WWTP

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Secondary With Ammonia Reduction	Activated Sludge	Hypochlorite	

Maximum Daily (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.80	16,700	Not Overloaded	Holding Tank	Landfill

Changes Since Last Permit Issuance: Modifications to the treatment system under WQM Permit 1908201 Amendment No. 6 listed above were completed.

Other Comments: Treatment consists of influent lift station, screening, equalization, coagulation, flocculation, dissolved air flotation, anoxic treatment, aeration, clarification and sodium hypochlorite disinfection system, chlorine contact tank, sludge holding.

Stormwater Discharges from Industrial Activities

As a SIC code 2047 facility, stormwater discharges from the facility are subject to the requirements of 40 CFR 122.26(b)(14).

Four stormwater outfalls have been identified to discharge from the facility as enumerated below.

Outfall Number	Discharge to:
002	Susquehanna River (Canal)
003	Infiltration
004	Infiltration
006	Susquehanna River

As a SIC code 2047 facility it would be subject to Appendix I (Food and Kindred Products) of the PAG-03 and its monitoring requirements and therefore, the relevant monitoring requirements of Appendix I will be included in this NPDES Permit. Specifically, Appendix I facilities must monitor stormwater discharges twice per year for Total Nitrogen (new), Total Phosphorus (new), pH, BOD_5, Total Suspended Solids, Chemical Oxygen Demand, NO_2-NO_3, and Oil and Grease. In addition, benchmark values are included for five of these parameters at 9.0 SU for pH, 30 mg/L for BOD_5, 100 mg/L for TSS, 120 mg/L for COD, and 30 mg/L for Oil and Grease.

These monitoring requirements will be included in PA0009270 for two representative stormwater outfalls draining to surface waters, 002 and 006.

Regarding the impairment listed on the previous page, the stormwater discharges are not reasonably expected to be contributing to the impairment for Mercury or PCBs due to the nature of the facility. The impairment from sedimentation, Aluminum, and Iron were listed by the Department in July 2023 after the receipt of this renewal application in April 2023 and therefore, no additional monitoring of the stormwater discharges will be required for these parameters at this time.

Compliance History

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD) Average Monthly	0.41	0.36	0.33	0.44	0.31	0.42	0.36	0.34	0.4	0.41	0.33	0.39
Flow (MGD) Daily Maximum	0.63	0.54	0.63	0.66	0.59	0.61	0.54	0.57	0.56	0.56	0.56	0.586
pH (S.U.) Minimum	7.3	7.9	7.9	7.8	7.8	7.7	7.8	7.7	7.8	7.7	7.7	7.0
pH (S.U.) Instantaneous Maximum	8.2	8.1	8.0	8.1	8.0	8.1	8.2	8.3	8.1	8.0	8.1	7.6
DO (mg/L) Instantaneous Minimum	4	3.6	3.7	3.4	3.5	3.3	3.5	4	4	4.4	4.9	4.8
TRC (mg/L) Average Monthly	0.35	0.25	0.19	0.27	0.21	0.2	0.25	0.28	0.25	0.38	0.3	0.33
TRC (mg/L) Instantaneous Maximum	0.56	0.55	0.48	0.42	0.41	0.4	0.51	0.5	0.55	0.55	0.55	0.51
BOD5 (lbs/day) Average Monthly	< 12	< 23	< 8	< 50	< 9	< 43	< 10	< 7	< 9	< 9	< 14	< 8
BOD5 (lbs/day) Daily Maximum	24	55	16	166	13	114	10	< 10	13	13	< 23	< 11
BOD5 (mg/L) Average Monthly	< 2.66	< 8.08	< 2.32	< 12.33	< 2.24	< 10.09	< 2.43	< 2.15	< 2.38	< 2.23	< 5.1	< 2
BOD5 (mg/L) Daily Maximum	5.01	23.7	3.21	41.5	2.72	29.2	2.74	2.58	3.85	2.93	< 10.9	< 3
TSS (lbs/day) Average Monthly	41	< 37	< 32	< 22	< 22	< 54	< 24	29	67	< 22	< 16	< 22
TSS (lbs/day) Daily Maximum	98	90	84	28	30	154	30	60	112	29	< 23	34
TSS (mg/L) Average Monthly	9	< 9	< 8	< 5	< 5	< 12	< 6	8	17	< 6	< 5	< 6
TSS (mg/L) Daily Maximum	21	20	17	7	6	33	8.0	16	33	8.0	6	9
Total Dissolved Solids (lbs/day) Daily Maximum	4168	4468	5757	3086	3594	3697	4002	2376	4460	4594	1784	4300

Total Dissolved Solids (mg/L) Daily Maximum	1020	992	1170	771	917	806	941	633	955	1080	764	1090
Oil and Grease (mg/L) Average Monthly	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Oil and Grease (mg/L) Instantaneous Maximum	< 5	25.3	< 5.2	< 5.4	< 5	< 5	< 5	< 5	< 5	< 5.7	< 5	< 5
Fecal Coliform (No./100 ml) Geometric Mean			< 3	< 2	< 1	< 1	< 1					
Fecal Coliform (No./100 ml) Instantaneous Maximum	4	1	37	58	< 1	4	1	1	8	7.5	18	< 1
Nitrate-Nitrite (mg/L) Average Monthly	5.76	7.3	7.85	< 3.329	4.03	4.73	4.47	5.06	6.89	4.84	< 3.38	5.14
Nitrate-Nitrite (lbs) Total Monthly	725	846	752	< 444	425	588	16	546	840	527	< 295	594
Total Nitrogen (mg/L) Average Monthly	8.56	8.55	10.19	5.725	5.28	6.98	6.76	6.08	10.13	6.84	4.38	6.57
Total Nitrogen (lbs) Effluent Net Total Monthly	1105	1026	1119	733	< 541.4	889	827	655.7	1267.4	< 681.4	< 411.3	721.1
Total Nitrogen (lbs) Total Monthly	1105	1026	1119	733	688	889	827	653	1232	757	< 435	766
Ammonia (lbs/day) Average Monthly	< 2	< 1	< 1	< 2	< 1	< 2	< 1	< 1	< 3	< 84	< 2	< 3
Ammonia (lbs/day) Daily Maximum	< 2	< 2	< 2	< 2	< 2	2	< 2	< 2	< 4	< 4	< 4	< 4
Ammonia (mg/L) Average Monthly	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.7	< 0.8	< 0.8	< 0.8
Ammonia (mg/L) Daily Maximum	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.8	< 0.8	< 0.8	< 0.8
Ammonia (lbs) Total Monthly	< 49	< 45	< 39	< 51	< 44	< 51	< 45	< 41	< 85	< 84	< 69	< 91
Ammonia (lbs) Total Annual			< 976									
TKN (mg/L) Average Monthly	2.266	< 1.286	< 1.842	< 1.25	< 1.044	< 1.721	< 1.519	1.4	2.27	< 1.347	< 0.854	1.076
TKN (lbs) Total Monthly	290	< 150	< 178	< 159	< 116	< 220	< 173	151	270	< 148	< 70	124
Total Phosphorus (mg/L) Average Monthly	5.8	7.3	11.6	5.77	< 2.29	< 1.84	3.5	4.6	9.1	10.3	8	2.7

Total Phosphorus (lbs) Effluent Net Total Monthly	721.4	849.3	1045	760.5	< 221	< 223	406	467.6	1104	1099	727.4	295
Total Phosphorus (lbs) Total Monthly	721	849	1045	760	< 221	< 223	406	499	1104	1099	727	295
Sulfate (mg/L) Daily Maximum	46.9	42.8	50.8	55.4	61.2	63.5	43.2	42.8	45.3	43.7	48.2	45.4
Chloride (mg/L) Daily Maximum	305	286	310	229	264	306	237	171	320	332	292	339
Bromide (mg/L) Daily Maximum	1.72	1.62	0.352	1.62	1.92	2.65	2.17	0.982	1.97	9.12	2.54	3.86

DMR Data for Outfall 002 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
pH (S.U.) Daily Maximum						8.4						7.8

Compliance History, Cont'd	
Summary of Inspections:	The facility has been inspected at least annually by the Department over the past permit term. The most recent inspection of the facility by the Department on February 28, 2023 identified prior eDMR effluent violations but no operational violations at the time of inspection.
Other Comments:	There are no open violations in eFACTS for Big Heart Pet Brands or Post Consumer Brands, Inc. The permittee received an NOV on July 12, 2023 for an unauthorized discharge of green dye.

Existing Effluent Limitations and Monitoring Requirements – Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
BOD5	253	506	XXX	Report	Report	189	1/week	24-Hr Composite
TSS	307	615	XXX	Report	Report	200	1/week	24-Hr Composite
Total Dissolved Solids	XXX	Report	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/week	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	XXX	XXX	400	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	400	1/week	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia	Report	Report	XXX	7.8	13.3	19.5	2/week	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Outfall 001, Continued (from 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Sulfate	XXX	XXX	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Chloride	XXX	XXX	XXX	XXX	Report	XXX	1/month	24-Hr Composite
Bromide	XXX	XXX	XXX	XXX	Report	XXX	1/month	24-Hr Composite

Existing Effluent Limitations and Monitoring Requirements – Chesapeake Bay Outfall 001								
Parameter	**Effluent Limitations**						**Monitoring Requirements**	
	Mass Units (lbs/day) [1]		**Concentrations (mg/L)**				**Minimum [2] Measurement Frequency**	**Required Sample Type**
	Monthly	**Annual**	**Monthly**	**Monthly Average**	**Maximum**	**Instant. Maximum**		
Total Nitrogen (lbs) Effluent Net	XXX	33,196 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs) Effluent Net	XXX	1,492 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Existing Effluent Limitations and Monitoring Requirements – Stormwater Outfalls 002 and 006								
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
BOD5	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.5
Latitude 41º 1' 16.16" **Longitude** -76º 20' 43.68"
Wastewater Description: Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	-	95.2(1)
Oil and Grease	15	Average Monthly	-	95.2(2)(ii)
	30	IMAX	-	95.2(2)(ii)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The above limits are applicable and are already included in the existing permit and will remain. No Effluent Limitation Guidelines (ELGs) specifically apply to the facility but two sections have historically been considered useful for the derivation of limits for it. 40 CFR 406 Subpart G applies to the manufacture of animal feeds primarily using grains and grain by-products. 40 CFR 432 Subpart I applies to canned meats. See below under BPJ for additional information on the derivation of technology-based effluent limits.

Best Professional Judgment (BPJ) Limitations

Because no ELGs are directly applicable to the facility, BPJ limitations have been based on both 40 CFR 406 Subpart G (Animal Feed Subcategory) and 40 CFR 432 Subpart I (Canned Meat Processors).

The permittee has indicated that the approximate ratio of Wet versus Dry pet food production is 40%:60%. Therefore, this ratio will be used to develop the technology-based limits. 40 CFR 432 (I) includes factors for converting the pounds of production to limitations in pounds of pollutants for BOD5, TSS and NH3-N. 40 CFR 406 (G) states that "(t)here shall be no discharge of process waste water pollutants to navigable waters." Based on these, pollutant loading limits are based on only the wet portion of the facility's production. The relevant texts of these regulations are attached (Attachment B).

See Attachment C for the spreadsheet used for the derivation of the tech limits for BOD5, TSS and Oil and Grease. Included are the Oil and Grease limitations from 25 PA Code 95. Calculations for a BOD instantaneous maximum are determined from the effective monthly average concentration multiplied by a peaking factor of 2.5. Also listed are the highest levels seen for these parameters from the past year of eDMR data for reference.

The previous and proposed limitations for these three parameters are listed in the table below. Due to the nature of industrial production and as typical for technology-based limits for industrial facilities derived from ELGs, Average Monthly and Daily Maximum concentration limits will again not be included for BOD5 and TSS. The Oil and Grease limits from 25 PA Code 95 remain the most stringent and will remain. No Daily Maximum concentration will be included for Oil and Grease.

Existing and Proposed Limitations for BOD_5, TSS, and Oil and Grease.

	Loading (lb/day)		Concentration (mg/L)		
Parameter	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant. Maximum
BOD5 - Existing	253	506	Report	Report	189
BOD5 - Proposed	215	431	Report	Report	129
TSS - Existing	307	615	Report	Report	200
TSS - Proposed	262	525	Report	Report	157
Oil and Grease - Existing	XXX	XXX	15	XXX	30
Oil and Grease - Proposed	XXX	XXX	15	XXX	30

These limits are achievable based on the current eDMR data.

Ammonia-Nitrogen
The ammonia limits from §432.93 are not applied due to the higher organ and urea content in the scrap meat used here. The existing ammonia-nitrogen limits were based on EPA derivations in the Technical Support Document for Water Quality Based Toxics Control using a log-normal distribution for daily maximum and monthly average limits determined from a 104 data point set for the 2000 permit. This was the result of a consent agreement between the Department and a former permittee (Heinz Corporation) when they were unable to comply with original BPJ limits derived from 40 CFR 432. Therefore, the existing ammonia-nitrogen limits will remain unchanged.

Fecal Coliform
The existing Fecal Coliform Limit of 400 No./100 ml is also taken from 40 CFR Subpart I and will remain. The existing summer geometric mean of 200 No./100 ml taken from 25 PA Code 92a.47 will also remain.

Water Quality-Based Limitations

BOD, NH3, & DO
The WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. WQM7.0 modeling was performed (see Attachment D) for the discharge to the Susquehanna River and showed that no limitations are necessary beyond the BPJ-based treatment limits explained above.

Toxics Management
A "Reasonable Potential Analysis" was performed to determine additional parameters with the reasonable potential to violate water quality standards (see the Toxics Management Spreadsheet, Attachment E). The Toxics Management Spreadsheet (TMS) is a mass-balance water quality analysis model that includes consideration for mixing and other factors to determine recommended water quality-based effluent limits. The model incorporates the water quality criteria of 25 Pa.Code §93.

The reasonable potential analysis found no additional parameters as candidates for limitations in the NPDES permit. The existing permit includes monitoring for Total Dissolved Solids (TDS), Chloride, Bromide and Sulfates due to the loading of TDS discharged. The TDS concentration over the past permit term per available eDMR data has averaged 1025 mg/L and this monitoring will remain but at a reduced frequency from monthly to quarterly. The results for the other parameters warrant no further monitoring at this time per the attached Toxics Management Spreadsheet.

Total Residual Chlorine
The existing technology-based limit of 0.5 mg/L from 25 PA Code 92a.48(b)(2) is adequate to protect the receiving stream given the significant dilution in the Susquehanna River.

Chesapeake Bay/Nutrient Requirements
A portion of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the Water Pollution Control Act, 33 U.S.C. §1313(d). Total Nitrogen and Total Phosphorus cap loads have been established for significant dischargers in Pennsylvania to reduce the total nutrient load to the Bay and meet State of Maryland Water Quality Standards. The subject facility is considered a Chesapeake Bay Significant Industrial Wastewater discharger. Nutrient cap loadings have previously been established for this facility pursuant to the Phase III Watershed Implementation Plan wastewater supplement (currently identified there as former permittee Del Monte Corp.).

The discharge's cap loadings as well as the actual Total Nitrogen and Total Phosphorus loadings for the past two cycle years are listed in the table below. The permittee purchased Total Phosphorus credits for both the 2021-2022 and 2022-2023 compliance years.

Nutrient	Total Nitrogen (lbs)	Total Phosphorus (lbs)
Nutrient Cap Loads for PA0028681	33,196	1,492
10/1/21 – 9/30/22 Net Mass Load	<13,317	1,449
10/1/21 – 9/30/22 Total Mass Load	<13,317	18638
10/1/21 – 9/30/22 Pounds Purchased*	0	17,189*
10/1/22 – 9/30/23 Net Mass Load	<9,217	1,427

10/1/22 – 9/30/23 Total Mass Load	<9,217	8,383
10/1/22 – 9/30/23 Pounds Purchased*	0	6,956*

*Pounds purchased is determined by dividing the purchased credits by the TP delivery ratio of 0.483.

Chemical Additives

The permittee has identified five chemical additives currently used at the facility which are discharged from the facility. These additives are on the Department's approved list and have previously been approved for use.

E. Coli

E. Coli monitoring will be introduced at this time due to changes at §92a.61 of the Department's regulations and current policy. Quarterly monitoring is proposed for this 0.5 MGD discharge.

Anti-Backsliding

No proposed effluent limitations in this draft permit are less stringent than the existing limits consistent with the anti-backsliding requirements of the Clean Water Act and 40 CFR 122.44(I).

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.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
BOD5	212	431	XXX	Report	Report	129	1/week	24-Hr Composite
TSS	262	525	XXX	Report	Report	157	1/week	24-Hr Composite
Total Dissolved Solids	XXX	Report	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	1/week	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	XXX	XXX	400	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	400	1/week	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Outfall 001, Continued (from 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Ammonia	Report	Report	XXX	7.8	13.3	19.5	2/week	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: TDS monitoring frequency has reduced from monthly to quarterly as mentioned above. Sulfate, Chloride, and Bromide monitoring are removed as also mentioned above. E. Coli monitoring is new as also mentioned above. BOD_5 and TSS limitations have been updated as mentioned above. Total Iron and Total Aluminum monitoring are new associated with known impairment to the Susquehanna River.

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	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		
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
BOD5	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 002

Other Comments: Total Nitrogen and Total Phosphorus monitoring are new.

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 006, 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		
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
BOD5	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 006

Other Comments: Total Nitrogen and Total Phosphorus monitoring are new.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

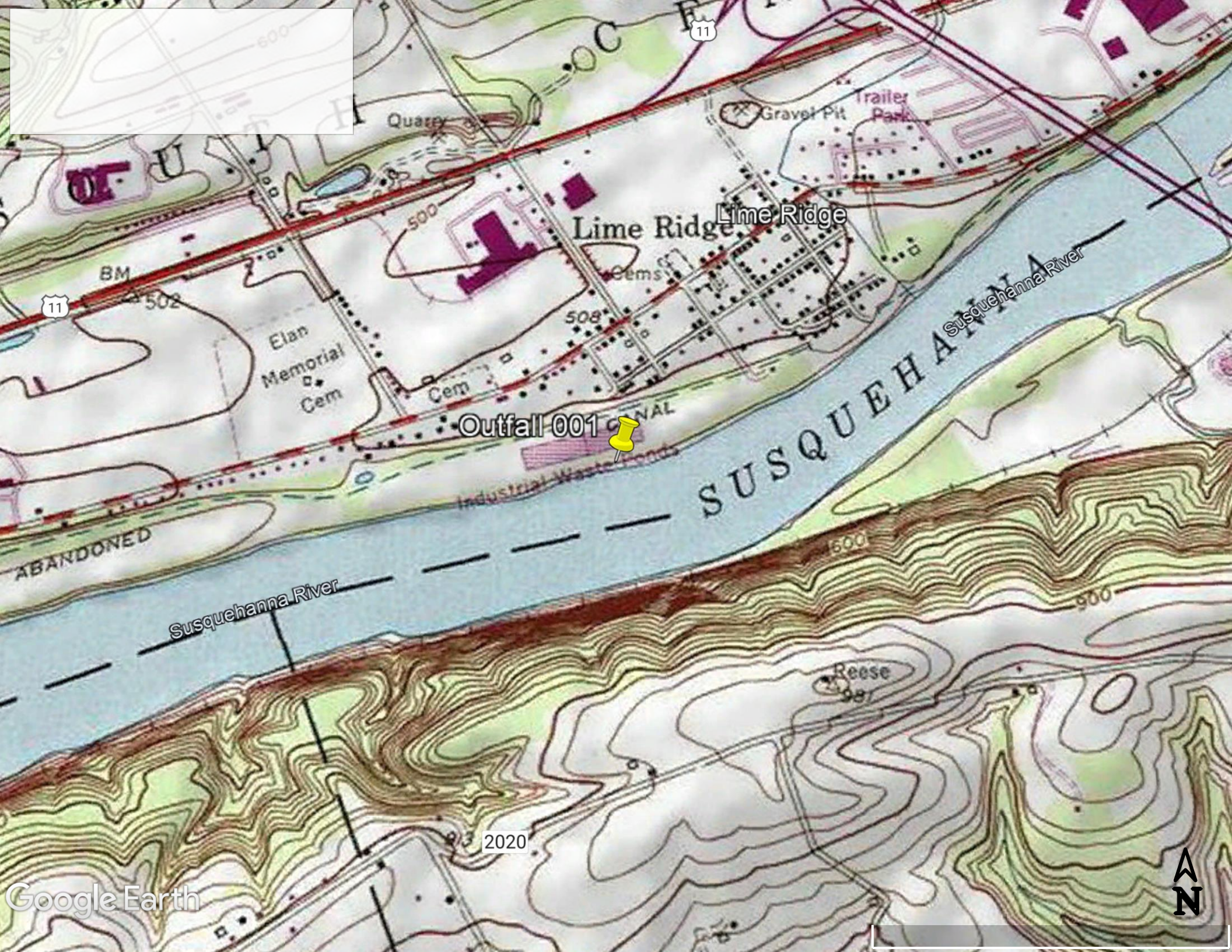
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs) Effluent Net	XXX	33,196 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs) Effluent Net	XXX	1,492 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment **D**)
☒	Toxics Management Spreadsheet (see Attachment **E**)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☒	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☒	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☒	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☒	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limitations for Individual Sewage Permits, 03/21, Establishing Effluent Limitations for Individual Industrial Permits, 9/10/13
☐	Other:

Attachments:

A. Discharge Location Map
B. 40 CFR 406(g) and 432(l)
C. Derivation of BPJ Limits
D. WQM7.0
E. Toxics Management Spreadsheet


Lime Ridge
Lime Ridge
Outfall 001
Susquehanna River
SUSQUEHANNA
Susquehanna River
Quarry
Gravel Pit
Trailer Park
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ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR data is current as of June 21, 2018

Title 40 - Chapter I - Subchapter N - Part 406 - Subpart G

Title 40: Protection of Environment
PART 406-GRAIN MILLS POINT SOURCE CATEGORY

Subpart G-Animal Feed Subcategory

Contents

SOURCE: 40 FR 918, Jan. 3, 1975, unless otheiwise noted.

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§406.70 Applicability; description of the animal feed subcategory.

. The provisions of this subpart are applicable to discharges resulting from the manufacturing of animal feeds (formula feed concentrate) using primarily grain and grain by-products which may be supplemented by proteins, pharmaceuticals, vitamins or mineral additives.

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§406.71 Specialized definitions.

For the purpose of this subpart: The general definitions, abbreviations and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

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§406.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Except as provided in §§125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT}: There shall be no discharge of process waste water pollutants to navigable waters.

[60 FR 33937, June 29, 1995]

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§406.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: There shall be no discharge of process waste water pollutants to navigable waters.

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§406.74 [Reserved]

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§406.75 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart: There shall be no discharge of process waste water pollutants to navigable waters.

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§406.76 Pretreatment standards for new sources.

Any new source subject to this subpart that introduces process wastewater pollutants into a publicly owned treatment works must comply with 40 CFR part 403. In addition, the following pretreatment standard establishes the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged to a publicly owned treatment works by a new point source subject to the provisions of this subpart.

Pollutant or pollutant property	Pretreatment standard
pH	**No limitation.**
BODS	Do.
TSS	Do.

[40 FR 918, Jan. 3, 1975, as amended at 60 FR 33937, June 29, 1995]

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§406.77 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

Except as provided in §§125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT): The limitations shall be the same as those specified for conventional pollutants (which are defined in §401.16) in §406.72 of this subpart for the best practicable control technology currently available (BPT).

[51 FR 24997, July 9, 1986]

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Title 40 ---> Chapter I ---> Subchapter N ---> Part 432 -, Subpart I

Title 40: Protection of Environment
PART 432-MEAT AND POULTRY PRODUCTS POINT SOURCE CATEGORY

Subpart I-Canned Meats Processors

Contents

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§432.90 Applicability.

This part applies to discharges of process wastewater resulting from the production of canned meats, alone or in combination with any other finished products, by a canned meats processor.

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§432.91 Special definitions.

For the purpose of this subpart:

(a) *Canned meats processor* means an operation which prepares and cans meats (stew, sandwich spreads, or similar products), alone or in combination with other finished products, at rates greater than 6000 lbs (2730 kg) per day.

(b) *Finished products* means the final product, such as fresh meat cuts which includes steaks, roasts, chops or boneless meat, smoked or cured hams, bacon or other smoked meats, sausage, bologna or other luncheon meats, stews, sandwich spreads _or other canned meats.

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§432.92 Effluent limitations attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BPT:

(a) Facilities that generate no more than 50 million pounds per year of finished products must achieve the following effluent limitations:

EFFLUENT LIMITATIONS

[BPT]

Regulated parameter	Maximum daily[1]	Maximum monthly avg.[1]
BODs	0.74	0,37
Fecal Coliform	(')	I')
O&G[4]	0.26	0.13
TSS	0.90	0.45

[1]Pounds per 1000 lbs (or g/kg) of finished product.

'Maximum of 400 MPN or CFU per 100 ml at any time.

[3]No maximum monthly average limitation.

[4]May be measured as hexane extractable material (HEM).

(b) Facilities that generate more than 50 million pounds per year of finished products must achieve the limitations for BODs, fecal coliform, O&G, and TSS specified in paragraph (a) of this section.

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§432.93 Effluent limitations attainable by the application of the best available technology economically achievable (BAT).

Except as provided by 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BAT:

(a) Facilities that generate no more than 50 million pounds per year of finished products must achieve the following effluent limitations:

EFFLUENT LIMITATIONS

[BAT]

Regulated parameter	Maximum daily[1]	Maximum monthly avg.[1]
Ammonia (as N)	8.0	4.0

[1]mg/L (ppm).

(b) Facilities that generate more than 50 million pounds per year of finished products must achieve the following effluent limitations:

EFFLUENT LIMITATIONS

[BAT]

Regulated parameter	Maximum daiiy[1]	Maximum monthly avg.[1]
Ammonia (as N)	8.0	4.0
Total Nitrogen	194	134

[1]mg/L (ppm).

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§432.94 Pretreatment standards for existing sources (PSES). [Reserved]

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§432.95 New source performance standards (NSPS).

Except as provided in paragraph (c) of this section, any source that is a new source subject to this subpart must achieve the following performance standards:

(a) Facilities that generate no more than 50 million pounds per year of finished products must achieve the standards for BODs, fecal coliform, O&G, and TSS specified in §432.92(a).

(b) Facilities that generate more than 50 million pounds per year of finished products must achieve the limitations for BODs, fecal coliform, O&G, and TSS specified in §432.92(b) and the limitations for ammonia (as N) and total nitrogen specified in §432.93(b).

(c) Any source that was a new source subject to the standards specified in §432.95 of title 40 of the Code of Federal Regulations, revised as of July 1, 2003, must continue to achieve the standards specified in this section until the expiration of the applicable time period specified in 40 CFR 122.29(d)(1) after which it must achieve the effluent limitations specified in §§432.92 and 432.93.

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§432.96 Pretreatment standards for new sources (PSNS). [Reserved]

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§432.97 Effluent limitations attainable by the application of the best control technology for conventional pollutants (BCT).

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the application of BCT: Limitations for BODs, fecal coliform, O&G, and TSS are the same as the corresponding limitation specified in §432.92.

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Post Consumer Brands
NPDES No. PA0009270
South Centre Township, Columbia County

Derivation of Technology-Based Limits
Post Consumer Brands
PA0009270

Ave. Flow=	0.5	MGD
Ave. Production =	230000	Tons/year
Ave. Production =	1459205.685	lbs/day
Percent Wet=	40	%
Wet Production=	583682.2738	lbs/day

	Monthly Average					Maximum Daily				Instant. Maximum	
	40 CFR 406 (G)	BPJ Limit	BPJ Limit	Max past year	Ch 95 Limit	40 CFR 406 (G)	BPJ Limit	BPJ Limit	Max past year	Ch 95 Limit	BPJ Limit
Units:	lb/1000 lb	lb/day	mg/L	mg/L	mg/L	lb/ 1000 lb	lbs/day	mg/L	mg/L	mg/L	mg/L
BOD5	0.37	215.96	51.79	<12.33		0.74	431.92	103.58	41.5		129.47
O&G	0.13	75.88	18.20	<10	15	0.26	151.76	36.39	25.3 (IMAX)	30	45.49
TSS	0.45	262.66	62.99	17		0.9	525.31	125.97	33		157.47

Calculations

Wet Production = Ave. Production x Percent Wet/100
Ave. Prod lbs/day = (Ave. Production(Tons/year) x 2000 lbs/ton)/(12 mo/year X 26.27 Days/month)
BPJ lbs/day limit = (40 CFR 406(G) Factor) x Wet Production /1000
BPJ mg/L limit = (BPJ lbs/day Limit)/(Ave. Flow x 8.34)
BPJ IMax Limit = Monthly Average BPJ Limit x 2.5

Input Data WQM 7.0

Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
6685	SUSQUEHANNA RIVER	**154.660**	460.00	10544.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Post Consumer	PA 0009270	0.5000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	51.79	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	7.80	0.00	0.00	0.70

Input Data WQM 7.0

Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
6685	SUSQUEHANNA RIVER	**137.660**	139.35	11200.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
07K	6685	SUSQUEHANNA RIVER

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (ºC)	Analysis pH
Q7-10 Flow												
154.660	1052.50	0.00	1052.50	.7735	0.00357	1.201	606.48	505.11	1.45	0.718	20.00	7.00
Q1-10 Flow												
154.660	673.60	0.00	673.60	.7735	0.00357	NA	NA	NA	1.13	0.922	20.01	7.00
Q30-10 Flow												
154.660	1431.40	0.00	1431.40	.7735	0.00357	NA	NA	NA	1.72	0.605	20.00	7.00

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07K	6685	SUSQUEHANNA RIVER

RMI	Total Discharge Flow (mgd)	Analysis Temperature (ºC)	Analysis pH
154.660	0.500	20.004	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
606.480	1.201	505.110	1.446
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.04	0.017	0.01	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.239	24.104	Tsivoglou	5
Reach Travel Time (days)			
0.718			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.072	2.03	0.01	8.24
0.144	2.03	0.01	8.24
0.215	2.03	0.00	8.24
0.287	2.03	0.00	8.24
0.359	2.02	0.00	8.24
0.431	2.02	0.00	8.24
0.503	2.02	0.00	8.24
0.575	2.02	0.00	8.24
0.646	2.01	0.00	8.24
0.718	2.01	0.00	8.24

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
07K	6685	SUSQUEHANNA RIVER

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
154.660	Post Consumer	16.75	15.6	16.75	15.6	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
154.660	Post Consumer	1.89	7.8	1.89	7.8	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
154.66	Post Consumer	51.79	51.79	7.8	7.8	3	3	0	0

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07K	6685	SUSQUEHANNA RIVER

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
154.660	Post Consumer	PA 0009270	0.500	CBOD5	51.79		
				NH3-N	7.8	15.6	
				Dissolved Oxygen			3

Discharge Information

Instructions | Discharge | Stream

Facility: **Post Consumer Brands** NPDES Permit No.: **PA0009270** Outfall No.: **001**

Evaluation Type **Custom / Additives** Wastewater Description: **Pet Food Manufacture Wastewater**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.5	100	7.9						

				0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Total Dissolved Solids (PWS)	mg/L		1460									
Bromide	mg/L		9.12									
Chloride (PWS)	mg/L		364									
Sulfate (PWS)	mg/L		57.3									

Stream / Surface Water Information

Post Consumer Brands, NPDES Permit No. PA0009270, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Susquehanna River**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	006685	154.66	460	10544			Yes
End of Reach 1	006685	137.66	439.35	11200		6.5	Yes

Q ***7-10***

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	154.66	0.09982										100	7		
End of Reach 1	137.66	0.09982													

Q ***h***

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	154.66														
End of Reach 1	137.66														

Model Results

Post Consumer Brands, NPDES Permit No. PA0009270, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All | ○ Inputs | ○ Results | ○ Limits

☑ ***Hydrodynamics***

Q 7-10

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
154.66	1052.50		1052.50	0.774	0.00023	1.13	749.475	663.37	1.244	0.835	42206.891
137.66	1117.98	10.056	1107.9285								

Q h

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time (days)	Complete Mix Time (min)
154.66	3253.96		3253.96	0.774	0.00023	1.856	749.475	403.801	2.34	0.444	20064.711
137.66	3430.216	10.056	3420.16								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.019 Analysis Hardness (mg/l): 100 Analysis pH: 7.01

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 720 PMF: 0.131 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 720 THH PMF: 0.131 Analysis Hardness (mg/l): N/A Analysis pH: N/A PWS PMF: 0.1688

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	##########	WQC applied at RMI 1317.6 with a design stream flow of 1117.984 cfs
Chloride (PWS)	0	0		0	250,000	250,000	61,245,470	WQC applied at RMI 1317.6 with a design stream flow of 1117.984 cfs
Sulfate (PWS)	0	0		0	250,000	250,000	61,245,470	

☑ ***CRL*** CCT (min): 720 PMF: 0.189 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	122,491	mg/L	Discharge Conc ≤ 10% WQBEL
Bromide	N/A	N/A	No WQS
Chloride (PWS)	61,245	mg/L	Discharge Conc ≤ 10% WQBEL
Sulfate (PWS)	61,245	mg/L	Discharge Conc ≤ 10% WQBEL