pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0096628**
Wastewater Type	**Sewage**	APS ID	**1113984**
Facility Type	**SFTF**	Authorization ID	**1485574**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Hamill Manufacturing Co. Inc.**	Facility Name	**Hamill Manufacturing STP**
Applicant Address	500 Pleasant Valley Road	Facility Address	500 Pleasant Valley Road
	Trafford, PA 15085-2701		Trafford, PA 15085-2701
Applicant Contact	Andrea Calcagno	Facility Contact	Andrea Calcagno
Applicant Phone	(724) 744-2131	Facility Phone	(724) 744-2131
Client ID	5616	Site ID	253320
SIC Code	4952	Municipality	Penn Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	Westmoreland
Date Application Received	May 17, 2024	WQM Required	
Date Application Accepted		WQM App. No.	6598402

Project Description: NPDES Permit Renewal

Summary of Review

This application is for a renewal which was previously issued on November 13, 2019.

The existing treatment process with a hydraulic design flow of 0.00196 MGD consists of a septic tank, sand filtration, and chlorination.

The discharge is to Lyons Run. Lyons Run is classified as a Trout Stocked Fishery.

Effluent Limitations:

This is a Small Flow Treatment Facility. The Standard Operating Procedure (SOP)[1] for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications SOP No. BCW-PMT-003 Final, November 9, 2012 Revised, November 9, 2023, Version 1.8 allows for the re-imposition of existing limits if the discharge was permitted prior to publication of the Small Flow Treatment Facilities Manual (362-0300-002) when such facilities are not capable of meeting tertiary treatment limits outlined in the SOP.

This discharge was in existence prior to publication of the SFTF Manual and since there have been no changes to the discharge, the receiving stream, or Department Modeling Policies and Procedures, the limitations are based on the previously approved pollution report, which is attached as reference.

A review of the DMR data shows a couple of TSS violations in the past year. No comments received from Operations Section.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	July 25, 2024
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	08/05/2024

Summary of Review

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 Notification:

Penn Township - May 16, 2024
Westmoreland County - May 16, 2024

Permit Conditions:

A. AMR to DEP
B. DMR to DEP
C. Septage and Scum Measurement
D. Septic Tank Pumping
E. Chlorine Minimization
F. No Stormwater Condition
G. Acquire Necessary Property Rights
H. Proper Sludge Disposal
I. Phase Out When Municipal Sewers Available

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.00196
Latitude	40º 23' 49.95"	Longitude	-79º 41' 36.98"
Quad Name	Murrysville	Quad Code	1508
Wastewater Description:	Treated Sewage Effluent from a manufacturing plant		
Receiving Waters	Lyons Run (TSF)	Stream Code	37355
NHD Com ID	99407446	RMI	0.7
Drainage Area	3.72 sq. mi.	Yield (cfs/mi^2)	0.02
Q_{7-10} Flow (cfs)	0.0744	Q_{7-10} Basis	Low flow statics for PA streams (previous fact sheet)
Watershed No.	19-A	Chapter 93 Class.	TSF
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final	Name	Turtle Creek Watershed
Nearest Downstream Public Water Supply Intake	PA American Water Co. Becks Run Station		

Treatment Facility Summary

Treatment Facility Name: Hamill Manufacturing STP

WQM Permit No.	Issuance Date
6598402	May 5, 1998

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sanitary Sewage	Secondary	Septic Tank	Chlorination	0.00196

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.00196	5.0	Not Overloaded	None	Disposal

Compliance History

DMR Data for Outfall 001 (from June 1, 2023 to May 31, 2024)

Parameter	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23
Flow (MGD) Average Monthly	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036	0.00036
pH (S.U.) Instantaneous Minimum	6.8	6.8	6.8	6.8	6.8	6.9	6.8	6.9	6.8	6.7	6.8	6.9
pH (S.U.) Instantaneous Maximum	6.9	6.9	7.0	7.1	7.0	7.0	6.9	7.1	6.9	7.1	7.1	7.1
TRC (mg/L) Average Monthly	< 0.20	< 0.23	0.26	< 0.21	< 0.20	< 0.20	0.24	0.20	0.26	0.22	0.44	0.26
TRC (mg/L) Instantaneous Maximum	< 0.20	0.29	0.31	0.23	< 0.20	< 0.2	0.30	0.20	0.35	0.29	0.70	0.30
CBOD5 (mg/L) Average Monthly	< 2.84	< 2	2.0	4.6	< 2	< 2	2.6	< 2	< 2	< 2	< 2	< 4.94
CBOD5 (mg/L) Instantaneous Maximum	3.7	< 2	2.0	5.4	< 2	< 2	3.2	< 2	< 2	< 2	< 2	7.9
TSS (mg/L) Average Monthly	< 42.5	49	< 5	< 5	< 5	< 5	5	5	7	< 5	< 5	< 5

TSS (mg/L) Instantaneous Maximum	80	53	< 5	8	< 5	< 5	5	5	8	< 5	< 5	< 5
Fecal Coliform (No./100 ml) Geometric Mean	< 1.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	2	< 1	< 1	< 1	< 1	< 1	< 1	1	< 1	1	1	1

Effluent Violations for Outfall 001, from: July 1, 2023 to: May 31, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	05/31/24	Avg Mo	< 42.5	mg/L	30	mg/L
TSS	04/30/24	Avg Mo	49	mg/L	30	mg/L
TSS	05/31/24	IMAX	80	mg/L	60	mg/L

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.00196
Latitude	40° 23' 50"	**Longitude**	79° 41' 37"

Wastewater Description: Sanitary sewage from a manufacturing plant

Technology-Based Limitations

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
pH	6.0 – 9.0 S.U.	Instant Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	TRC Implementation Guidance

* No changes to the existing limits.

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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/month	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	1/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab

POLLUTION REPORT November 15, 2002

(I) Project Description — New Discharge / Existing Discharge (X) — Change / Preliminary

A. NPDES Application/Permit No. PA 0096628
Part II Permit Nos.

B. Applicant, Case Name or Permittee: Hamill Manufacturing Company, Inc.
Municipality: Penn Township
County: Westmoreland

C. Type Waste
[X] Sewage
[ ] Industrial
[ ] Mine

D. Source and characteristics
Sewage from a manufacturing plant

E. USGS Quad : Murrysville

F. Latitude (or in. N) 40 23 50
Longitude (or in. W) 79 41 37

(II) Water Uses and Criteria

A. Receiving waters Lyons Run — Stream Code 37355
Chapter 93 classification TSF — R.M.I. 0.7
D.A. 3.72 sq. mi. — Yield 0.02 cfs/sq.mi
Flow 0.0744 cfs. — Based on data from Low Flow Statistics for PA streams
Elevation ____ ft.

Exceptions to standard water use lists :
Add
Delete PWS

Water Quality Criteria-Exceptions to Specific Criteria :
Add
Delete

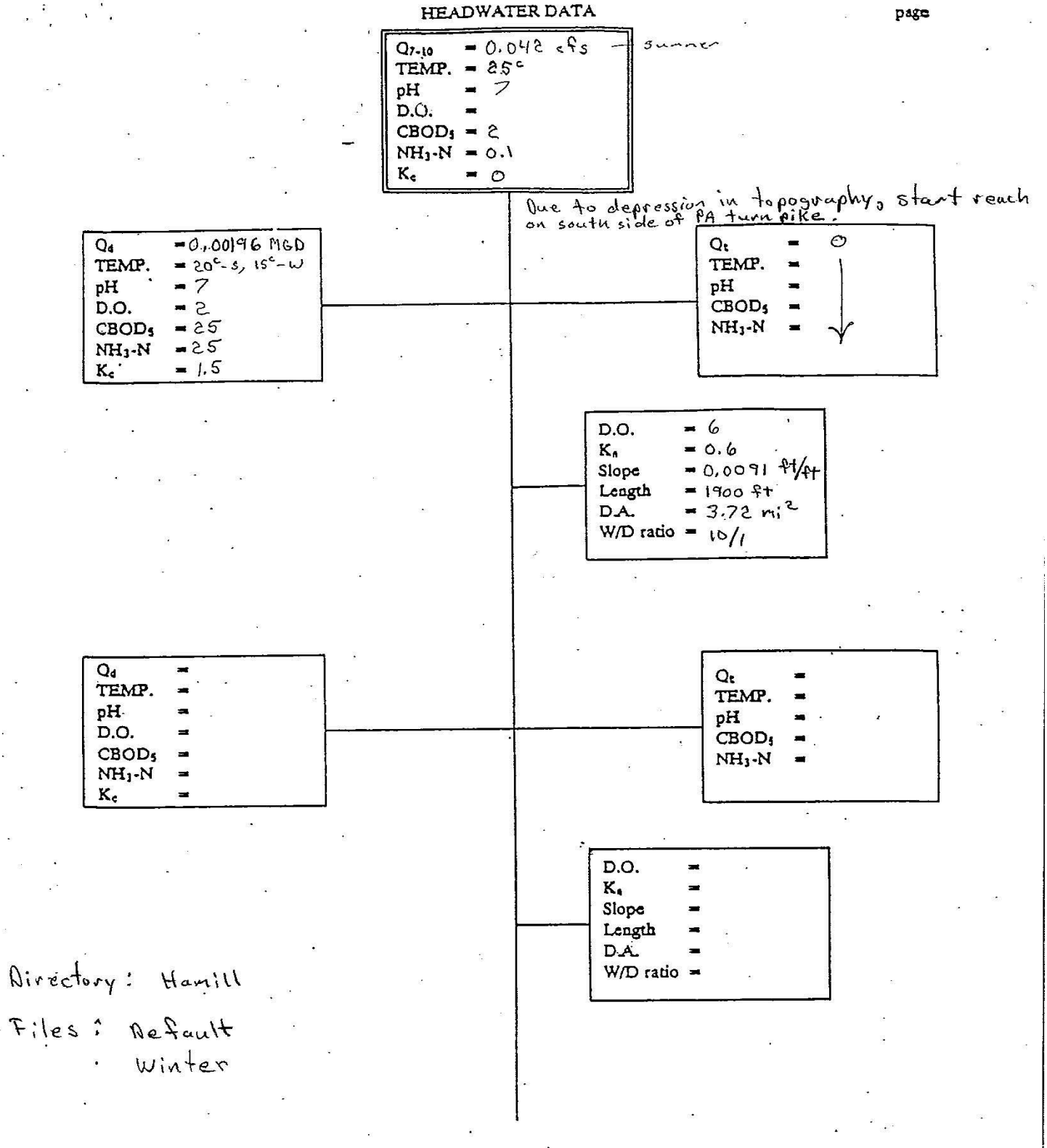
Impoundment
Special Downstream Uses :

B. Secondary Waters Turtle Creek — R.M.I. 10
Distance from discharge 0.7 mi. — Ch. 93 classification TSF
D.A. ____ sq. mi. — Yield ____ cfs/sq.mi
Flow ____ cfs. — Based on data from
Elevation ____ ft. — Stream Code 37204

Exceptions to standard water use lists :
Add
Delete

Water Quality Criteria-Exceptions to Specific Criteria :
Add
Delete PWS

Impoundment
Special Downstream Uses :
Downstream PWS : location PA American Water Co., Becks Run
distance from discharge ____ mi. intake ____ mgd.
stream flow at intake ____ cfs.


HEADWATER DATA
page
Q_{7-10} = 0.042 cfs — summer
TEMP. = 25°C
pH = 7
D.O. =
$CBOD_5$ = 2
NH_3-N = 0.1
K_c = 0
Due to depression in topography, start reach on south side of PA turnpike.
Q_d = 0.00196 MGD
TEMP. = 20°C-S, 15°C-W
pH = 7
D.O. = 2
$CBOD_5$ = 25
NH_3-N = 25
K_c = 1.5
Q_t = 0
TEMP. =
pH =
$CBOD_5$ =
NH_3-N =
D.O. = 6
K_a = 0.6
Slope = 0.0091 ft/ft
Length = 1900 ft
D.A. = 3.72 mi²
W/D ratio = 10/1
Q_d =
TEMP. =
pH =
D.O. =
$CBOD_5$ =
NH_3-N =
K_c =
Q_t =
TEMP. =
pH =
$CBOD_5$ =
NH_3-N =
D.O. =
K_a =
Slope =
Length =
D.A. =
W/D ratio =
Directory: Hamill
Files: Default
Winter

10/27/97
LOG #2651

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER USE PLANNING -- WATER USE DATA SYSTEM

LISTING OF SURFACE WITHDRAWALS
DOWNSTREAM OF HAMILL MANUFACTURING STP

IDENT-NO	NUM FAC	FACI TYPE	FACILITY-NAME	MUNIC CODE	STRMCODE & SIDE	RIVER MILE	WTR SHD	SIC CODE	--UTM COO ZN	NORTH
004778-004	1	0103	U S STEEL CORP-MONONGAHELA RIV DIV	02120	37185 R	11.10	19A	3312	17	4,471,
004839-004	1	0103	U S STEEL CORP	02130	37185 L	8.40	19A	3312	17	4,474,
101043-002	1	0103	PA AMERICAN WTR CO PGH SUB BECKS RN	02117	37185 L	4.47	19A	4941	17	4,473,
021673-002	1	0103	LTV STEEL - MONONGAHELA RIVER DIV	02001	37185 R	3.66	19A	3312	17	4,474,
004654-004	3	0103	JONES & LAUGHLIN STEEL CORP	02001	37185 L	2.80	19A	3312	17	4,475,
795033-005	1	0100	DUQUESNE L C-BRUNOT ISLAND-WITHDR	02001	32317 L	978.90	20F	4911	17	4,479,
101077-002	1	0185	WEST VIEW MUN AUTH RANNEY COLLECT W	02136	32317 L	976.49	20G	4941	17	4,482,
101077-003	1	0185	WEST VIEW MUN AUTH DAVIS ISLAND W 4	02136	32317 L	976.49	20G	4941	17	4,482,
101077-004	1	0185	WEST VIEW MUN AUTH DAVIS ISLAND W 6	02136	32317 L	976.49	20G	4941	17	4,482,
101077-005	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 11	02136	32317 L	976.49	20G	4941	17	4,482,
101077-006	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 10	02136	32317 L	976.49	20G	4941	17	4,482,
101077-007	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 13	02136	32317 L	976.49	20G	4941	17	4,482,
101077-008	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 14	02136	32317 L	976.49	20G	4941	17	4,482,
101077-009	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 15	02136	32317 L	976.49	20G	4941	17	4,482,
101077-010	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 16	02136	32317 L	976.49	20G	4941	17	4,482,
101077-011	1	0185	WEST VIEW MUN AUTH DAVIS ISLND W 17	02136	32317 L	976.49	20G	4941	17	4,482,
101077-025	1	0103	WEST VIEW MUN AUTH OHIO RIVER INTK	02118	32317 R	976.27	20G	4941	17	4,482,
004931-004	1	0103	SHENANGO INC-COKE & IRON-OHIO R DIV	02928	32317 L	976.10	20G	3312	17	4,482,
004928-005	1	0103	UNITED STATES STEEL CORP-OHIO R DIV	02928	32317 L	975.80	20G	2869	17	4,482,
101077-012	3	0185	WEST VIEW MUN AUTH NEVILLE I #1-3	02136	32317 L	975.32	20G	4941	17	4,483,
101077-013	2	0185	WEST VIEW MUN AUTH NEVILLE I #4+5	02136	32317 L	975.32	20G	4941	17	4,483,
101077-027	1	0185	WEST VIEW MUN AUTH NEVILLE I 7 WELL	02136	32317 L	975.32	20G	4941	17	4,483,
016404-004	1	0103	A M G RESOURCES CORP-OHIO RIV DIV	02928	32317 L	973.30	20G	7389	17	4,484,
021659-003	1	0103	ARISTECH CHEMICAL CORP-OHIO RIV DIV	02928	32317 L	973.20	20G	2821	17	4,484,
101095-002	1	0103	ROBINSON TOWNSHIP AUTH - OHIO RIVER	02935	32317 L	972.30	20G	4941	17	4,484,
101060-009	1	0185	CORAOPOLIS WATER DEPT WELL # 9	02809	32317 L	971.40	20G	4941	17	4,485,
101060-008	1	0185	CORAOPOLIS WATER DEPT WELL # 8	02809	32317 L	971.24	20G	4941	17	4,485,
101060-007	1	0185	CORAOPOLIS WATER DEPT WELL # 7	02809	32317 L	971.10	20G	4941	17	4,485,
101060-006	1	0185	COROAPOLIS WATER DEPT WELL # 6	02809	32317 L	971.06	20G	4941	17	4,485,
101060-005	1	0185	CORAOPOLIS WATER DEPT WELL # 5	02809	32317 L	970.92	20G	4941	17	4,485,
101060-004	1	0185	CORAOPOLIS WATER DEPT WELL # 3	02809	32317 L	970.87	20G	4941	17	4,485,
101060-003	1	0185	CORAOPOLIS WATER DEPT WELL # 2	02809	32317 L	970.84	20G	4941	17	4,485,
101060-002	1	0185	CORAOPOLIS WATER DEPT WELL # 1	02809	32317 L	970.79	20G	4941	17	4,485,
101073-002	1	0103	SEWICKLEY BORO WTR AUTH INTAK CRIB	02839	32317 L	969.82	20G	4941	17	4,486,
101090-008	1	0185	MOON TWP MUN AUTH WELL # 2	02927	32317 L	969.38	20G	4941	17	4,486,
101090-003	1	0185	MOON TWP MUN AUTH WELL # 1	02927	32317 L	969.34	20G	4941	17	4,487,
101090-002	1	0185	MOON TWP MUN AUTH - RANNEY COLL	02927	32317 L	969.30	20G	4941	17	4,487,
101090-012	1	0103	MOON TOWNSHIP MUN AUTH	02927	32317 L	969.30	20G	4941	17	4,487,
101081-002	5	0185	EDGEWORTH BORO MUN AUTH WELLS 1-5	02908	32317 L	968.19	20G	4941	17	4,488,
795034-009	1	0100	DUQUESNE L C-PHILLIPS - WITHDRAW	02811	32317 L	965.80	20G	4911	17	4,491,
101137-002	1	0185	CRESWELL HEIGHTS JT AUTH WELL # 1	04952	32317 L	965.65	20G	4941	17	4,491,
101137-003	1	0185	CRESWELL HEIGHTS JT AUTH WELL # 3	04952	32317 L	965.65	20G	4941	17	4,491,
101137-004	1	0185	CRESWELL HEIGHTS JT AUTH WELL # 4	04952	32317 L	965.65	20G	4941	17	4,491,
101137-005	1	0185	CRESWELL HEIGHTS JT AUTH WELL # 5	04952	32317 L	965.65	20G	4941	17	4,491,
101137-011	1	0185	CRESWELL HEIGHTS JT AUTH WELL 6	04937	32317 L	965.65	20G	4941	17	4,491,

10/27/97 LOG #2651 PAGE 2

101043-002 SURFACE WITHDRAWAL PA AMERICAN WTR CO PGH SUB BECKS RN
INSTREAM DIVERSION

USETYPE: WATER SUPPLIER STREAM: MONONGAHELA RIVER

NO-FAC:	1	DAILY WATER:	25,400,000 GAL	DAYS/YEAR:	365
MUNIC-CODE:	02-117	PEAK-WATER:		HOURS/DAY:	24
STREAM-CODE:	37185-L				
RIVER-MILE:	4.47	CONGR-DIST:			
QUAD:	1506	UTM-ZONE:	17	ZIP-CODE:	15234
LATITUDE:	40-24-35	UTM-NORTHING:	4,473,560 (M)	SIC-CODE:	4941
LONGITUDE:	79-57-16	UTM-EASTING:	588,720 (M)	REPORT-YEAR:	93
WATERSHED:	19-A			LAST-UPDATED:	01-95

POINTER-1: 101043-016 PA AMERICAN WATER CO PITTSBURG SUB WAT/ALLOC 7
POINTER-2:
POINTER-3:

SURFACE-AREA(ACRES):		MEAS-METH:	METERED	DA(SM):	7400.0
STORAGE-VOL(GAL):		MEAS-ACCY:		UPST-MI:	
MIN-DAY-WATER(GPD):					
YIELD(GPD):	130,000,000	SWP-YIELD-YEAR:			

MONTHLY-WATER(GAL)

JAN:
FEB:
MAR:
APR:
MAY:
JUN:
JUL:
AUG:
SEP:
OCT:
NOV:
DEC:

PROJECTED-WATER(GAL/YR)

DECADE-1:
DECADE-2:
DECADE-3:
DECADE-4:
DECADE-5:

PERMIT-AGY:
PERMIT-PROV:

ALLOC-AMOUNT(GPD): 80,000,000
CONS-RELEASE(GPD):

SWP-MAILING-LIST:

RESTRICT:

WQ-ORG:

MO-WAT-REPORT-YEAR:

FILE: a:\hamill\default.wqm

Default Data

a. Stream Values

1	Q1-10/Q7-10 ratio	.64
2	Q30-10/Q7-10 ratio	1.36
3	Temperature	25
4	pH	7
5	C-BOD5	2
6	NH3-N	.1
7	D.O. Saturation (%)	.85
8	D.O. Goal	6
9	Width/Depth ratio	10
10	KC...(Headwaters only!)	0
11	KN	.6

b. Discharge Values (30-day avgs.)

12	C-BOD5	25
13	NH3-N	25
14	Effluent D.O.	2
15	Effluent Temp.	20
16	KC	1.5
17	Balanced Technology(1=y 0=no)	0

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

REACH # 1
Headwaters and Tributary data

No. of Reaches : 1

Rh	Q7-10 (cfs)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)
HW	0.0420	25	7	7.12	2	.1
1	0.0000					

(WQAM63.EXE) Release 1.2 10-23-1997 09:34:09

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

Stream Characteristics

Rh	Q7-10 (cfs)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)
1	.04	25	7	7.12	2	.1

Q 1-10/Q 7-10 = .64
Q 30-10/Q 7-10 = 1.36

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

DISCHARGE # 1
Discharger Data
Q7-10 Design Conditions

Rh	FLOW (MGD)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)	KC (1/days)
1	0.0020	20	7	2	25	25	1.5

(WQAM63.EXE) Release 1.2 10-23-1997 09:36:01

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

REACH # 1
Reach Characteristics

Rh	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	6	.6	0.00910	1900	3.72	10

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

REACH # 1
Reach Characteristics

Rh	KR (/D)	TT (Days)
1	0	0

Default to EPA velocity equation

(WQAM63.EXE) Release 1.2 10-23-1997 09:37:13

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

NH3-N Discharge Allocations at Q30-10 (EMPR)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.0020	25.00	25.00	0	0	1.36

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

NH3-N Discharge Allocations at Q1-10 (EMPR)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.0020	50.00	50.00	0	0	7.01

(WQAM63.EXE) Release 1.2 10-23-1997 09:38:46

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

D.O. Allocations (EMPR)

DIS #	Q (MGD)	---NH3-N--- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	---CBOD5---- IND. Conc. (mg/l)	CUM. Conc. (mg/l)	CRIT. RCH.	PCT. REM. (%)
1	0.0020	25	25	25	25	0	0

FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

(Total)Discharge = .00196 MGD

Temp	= 24.7	pH	= 7	Width	=	3.93
CBOD-5	= 3.55	NH3-N	= 1.78	Depth	=	0.39
D.O.	= 6.78	D.O. Goal	= 6	Velocity	=	0.029
KC'	= .473	KN	= .6	W/D RATIO	=	10
KR	= 11.422	(OWENS)				

Dis. 1 Rch. 1 Trvl Time: .755

OK

Tr.Tm. (Days)	CBOD-5 (mg/l)	NH3-N (mg/l)	D.O. (mg/l)
0.075	3.39	1.67	7.12
0.151	3.25	1.56	7.12
0.226	3.11	1.46	7.12
0.302	2.97	1.37	7.12
0.377	2.84	1.28	7.12
0.453	2.72	1.20	7.12
0.528	2.60	1.13	7.12
0.604	2.49	1.06	7.12
0.679	2.38	0.99	7.12
0.755	2.28	0.93	7.12

No Sag, ok

(WQAM63.EXE) Release 1.2 10-23-1997 09:39:29

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FILE: a:\hamill\default.wqm
Hamill Manufacturing initial modelling analysis

Summer

Effluent Limitations Display

DIS #	Q MGD	NH3-N TOX. 1 DAY	30 DAY	DISS. OXYGEN C-BOD5 30-DAY	NH3-N 30-DAY	EFF. D.O.
1	.00196	50	25	25	25	2

FILE: a:\hamill\default.wqm
Winter ammonia nitrogen analysis

REACH # 1
Headwaters and Tributary data

No. of Reaches : 1

Rh	Q7-10 (cfs)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)
HW	0.0840	5	7	10.82	2	.1
1	0.0000					

(WQAM63.EXE) Release 1.2 10-23-1997 09:41:17

FILE: a:\hamill\default.wqm
Winter ammonia nitrogen analysis

DISCHARGE # 1
Discharger Data
Q7-10 Design Conditions

Rh	FLOW (MGD)	T (c)	pH (su)	DO (mg/l)	CBOD5 (mg/l)	NH3-N (mg/l)	KC (1/days)
1	0.0020	15	7	2	25	25	1.5

FILE: a:\hamill\default.wqm
Winter ammonia nitrogen analysis

REACH # 1
Reach Characteristics

Rh	D.O. GOAL	KN (/D)	RCH. SL. (FT/FT)	RCH. LEN. (FT.)	DRAIN AREA (MI^2)	W/D
1	6	.6	0.00910	1900	3.72	10

(WQAM63.EXE) Release 1.2 10-23-1997 09:41:53

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FILE: a:\hamill\default.wqm
Winter ammonia nitrogen analysis

REACH # 1
Reach Characteristics

Rh	KR (/D)	TT (Days)
1	0	0

D.O. sag model not conducted since secondary treatment was adequate for summer period. Summer period is the critical season for D.O. sag.

FILE: a:\hamill\winter.wqm
Winter ammonia nitrogen analysis

NH3-N Discharge Allocations at Q30-10 (EMPR)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.0020	25.00	25.00	0	0	4.08

(WQAM63.EXE) Release 1.2 10-23-1997 09:42:43

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FILE: a:\hamill\winter.wqm
Winter ammonia nitrogen analysis

NH3-N Discharge Allocations at Q1-10 (EMPR)

DIS	Q (mgd)	BASE. CONC. (mg/l)	MULT. CONC. (mg/l)	CRIT. RCH.	PCT. RED. (%)	NH3-N CRIT. (mg/l)
1	0.0020	50.00	50.00	0	0	20.59

FILE: a:\hamill\winter.wqm
Winter ammonia nitrogen analysis

Winter

Effluent Limitations Display

DIS #	Q MGD	NH3-N TOX. 1 DAY	30 DAY	DISS. OXYGEN C-BOD5 30-DAY	NH3-N 30-DAY	EFF. D.O.
1	.00196	50	25	25	25	2

Impose no limits for ammonia nitrogen. Raw wastewater does not typically contain ammonia nitrogen concentrations greater than 25 mg/l.

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Total Residual Chlorine:

As per total residual chlorine implementation guidance, a monitoring and report requirement is considered adequate for small flow systems.

Nitrite + Nitrate:

The first downstream public water intake is the PA- American Water Company, Becks intake, located on the Monongahela River. Due to large dilution of stream flow to waste flow, no nitrite + nitrate limit will be imposed.

III. Effluent Limitations

NPDES #PA 0096628

A. Outfall 001 B. Discharge Volume 0.00196 MGD

Parameter	lbs/day				mg/l		
(Sewage)	Monthly Avg.	Weekly Avg.	Daily Max.		Monthly Avg.	Weekly Avg.	Instan. Max.
~~(Industrial Waste)~~	~~Daily Avg.~~		~~Daily Max.~~		~~Daily Avg.~~	Daily Max for Toxics	~~Instan. Max.~~
1. CBOD-5 Day (Year around)					25		50
2. Total Suspended Solids					30		60
3. Ammonia Nitrogen			No NH3-N Limit				
4. Phosphorus			No Phosp. Limit				
5. Fecal Coliform							
May 1 to Sep 30	200 /100 ml as a geometric mean						
Oct 1 to Apr 30	2,000 /100 ml as a geometric mean						
6. Total Residual Chlorine			Monitor and Report				
7. Dissolved Oxygen			No DO Limit				
8. pH	not less than 6.0 nor greater than 9.0						
9. Nitrite & Nitrate			No NO2-NO3 Limit				
10.							
11.							
12.							
13.							

Effluent Limitation Rational

1. PA Guidelines — Policy for conducting technical reviews of minor NPDES renewal application
2. Regulation
3. Water Quality Criteria — Chapter 93

Approvals:

Reviewer, Planning / WQ — Date 16 OCT 07

Geologist or Aquatic Biologist — Date

Chief, Planning / WQ — Date 10-26-07

96628

Chief, Division of WQ — Date

Hammill Manufacturing Company, Inc.