pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0272523**
Facility Type	**Industrial**	APS ID	**1001781**
Major / Minor	**Minor**	Authorization ID	**1288568**

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

Applicant and Facility Information

Applicant Name	**Symmco, Inc.**	Facility Name	**Symmco Manufacturing**
Applicant Address	40 South Park Street	Facility Address	40 South Park Street
	Sykesville, PA 15865-1130		Sykesville, PA 15865-1130
Applicant Contact	Bill Zimmerman	Facility Contact	
Applicant Phone	(814) 894-2461	Facility Phone	
Client ID	352392	Site ID	457034
SIC Code	3499	Municipality	Sykesville Borough
SIC Description	Manufacturing - Fabricated Metal Products, Nec	County	Jefferson
Date Application Received	August 23, 2019	EPA Waived?	No
Date Application Accepted	September 19, 2019	If No, Reason	New Discharge to TMDL Stream

Purpose of Application: New NPDES Permit for a new discharge of non-contact cooling water.

Summary of Review

This industrial facility manufactures sintered metal parts by pressing metal powders into green shaped parts using dies, and then sintered metal parts by high temperature sintering. During normal operation, non-contact cooling water is recirculated with a controlled discharge to the Sykesville Borough STP. The Facility is expanding their operation, along with additional cooling equipment, and has determined that the Borough STP is incapable of handling the increased hydraulic load of the one pass non-contact cooling water in the event of a power or recirculation failures. Therefore, they are proposing the discharge or emergency one pass non-contact cooling water through two outfalls in the rare event it is necessary to do so through this NPDES Permit.

Both outfalls will also have stormwater contributions, however the stormwater is being certified under a condition of “No Exposure” by the permittee.

There are currently no open violations listed in EFACTS for this permittee (4/28/2020).

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.

Approve	Deny	Signatures	Date
X		Adam Pesek Adam J. Pesek, E.I.T. / Environmental Engineering Specialist	April 29, 2020
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	May 4, 2020

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.3
Latitude	41º 4' 56.58"	Longitude	-78º 49' 11.43"
Quad Name	Dubois	Quad Code	1015
Wastewater Description:	Emergency Noncontact Cooling Water (NCCW) and No Exposure Industrial Stormwater		

Receiving Waters	Stump Creek	Stream Code	47922
NHD Com ID	123857377	RMI	7.03
Drainage Area	15 mi^2	Yield (cfs/mi^2)	0.0478
Q_{7-10} Flow (cfs)	0.717	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1337	Slope (ft/ft)	
Watershed No.	17-D	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final - 04/04/2007	Name	Stump Creek Watershed

Background/Ambient Data		Data Source
pH (SU)	6.8	6/9/2011 sample on Stump Creek @ Station Street Bridge
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake		Kittanning Suburban Joint Water Authority	
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,070
PWS RMI	45.6	Distance from Outfall (mi)	81.4

Changes Since Last Permit Issuance:

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.3
Latitude	41º 2' 59.61"	Longitude	-78º 49' 7.19"
Quad Name	DuBois	Quad Code	1015
Wastewater Description:	Emergency Noncontact Cooling Water (NCCW) and No Exposure Industrial Stormwater		

Receiving Waters	Stump Creek	Stream Code	47922
NHD Com ID	123857377	RMI	7.06
Drainage Area	15 mi^2	Yield (cfs/mi^2)	0.0478
Q_{7-10} Flow (cfs)	0.717	Q_{7-10} Basis	USGS Streamstats
Elevation (ft)	1337	Slope (ft/ft)	
Watershed No.	17-D	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	

Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final - 04/04/2007	Name	Stump Creek Watershed

Background/Ambient Data		Data Source
pH (SU)	6.8	6/9/2011 sample on Stump Creek @ Station Street Bridge
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake		Kittanning Suburban Joint Water Authority	
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,070
PWS RMI	45.6	Distance from Outfall (mi)	81.4

Changes Since Last Permit Issuance:

Other Comments:

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.3
Latitude	41º 2' 56.76"	**Longitude**	-78º 49' 11.64"
Outfall No.	002	**Design Flow (MGD)**	0.3
Latitude	41º 2' 59.28"	**Longitude**	-78º 49' 8.04"

Wastewater Description: Emergency Noncontact Cooling Water (NCCW) and No Exposure Industrial Stormwater

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	133.102(c)	95.2(1)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

A “Reasonable Potential Analysis” was not done for this permit review due to no effluent data being requested because of it being emergency one pass cooling water from a potable water source.

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Temperature (deg F) (ºF) Jan 1 - 31	47.9	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Feb 1 - 29	46.1	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Mar 1 - 31	58.2	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Apr 1 - 15	62.4	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Apr 16 - 30	60.2	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) May 1 - 15	59.9	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) May 16 - 31	63.9	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Jun 1 - 15	66.3	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Jun 16 - 30	70.3	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Jul 1 - 31	73.3	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Aug 1 - 15	72.1	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Aug 16 - 31	72.1	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Sep 1 - 15	67.8	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Sep 16 - 30	61.8	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Oct 1 - 15	56.9	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Oct 16 - 31	52.9	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet

Temperature (deg F) (ºF) Nov 1 - 15	48.2	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Nov 16 - 30	44.5	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Temperature (deg F) (ºF) Dec 1 - 31	49.3	Daily Maximum	Thermal Discharge Limit Calc Spreadsheet
Total Residual Chlorine	0.12	Average Monthly	TRC Evaluation Spreadsheet
Total Residual Chlorine	0.40	IMAX	TRC Evaluation Spreadsheet

Comments: Due to the close proximity of Outfalls 001 and 002, the TRC Evaluation Spreadsheet and Thermal Discharge Analysis Spreadsheet used a combined discharge flow rate of 0.6 MGD.

The Thermal Discharge Analysis Spreadsheet (attached) did not determine a need for any water quality-based limits.

Best Professional Judgment (BPJ) Limitations

Comments: Stump Creek is part of the finalized Stump Creek Watershed TMDL that was finalized in 2007. This is an Acid Mine Drainage (AMD) TMDL and there are no waste load allocations for this facility's discharges in it. TMDL parameters include pH, aluminum, total iron and manganese. The Department determined limits or monitoring for aluminum, total iron, and manganese would not be necessary in this permit because 1) the waste stream is one-pass non-contact cooling water that would have limited exposure to these parameters, 2) the source water is a public water supply with entry point maximum concentrations that are less than Chapter 93 water quality criteria, and 3) since these outfalls are only for emergency discharges that would rarely discharge, the discharge would have a negligible effect on improving the water quality in Stump Creek.

Stormwater is also discharged at these outfalls but were identified being "no exposure" in the application. Therefore, no additional requirements will be placed in the permit related to stormwater.

Anti-Backsliding

N/A

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)	XXX	Report Daily Max	XXX	XXX	XXX	XXX	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Daily when Discharging	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.12	XXX	0.40	Daily when Discharging	Grab
Temperature (deg F) (ºF) Jan 1 - 31	XXX	XXX	XXX	XXX	47.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Feb 1 - 29	XXX	XXX	XXX	XXX	46.1 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Mar 1 - 31	XXX	XXX	XXX	XXX	58.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Apr 1 - 15	XXX	XXX	XXX	XXX	62.4 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Apr 16 - 30	XXX	XXX	XXX	XXX	60.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) May 1 - 15	XXX	XXX	XXX	XXX	59.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) May 16 - 31	XXX	XXX	XXX	XXX	63.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jun 1 - 15	XXX	XXX	XXX	XXX	66.3 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jun 16 - 30	XXX	XXX	XXX	XXX	70.3 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jul 1 - 31	XXX	XXX	XXX	XXX	73.3 Daily Max	XXX	Daily when Discharging	I-S

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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Temperature (deg F) (ºF) Aug 1 - 15	XXX	XXX	XXX	XXX	72.1 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Aug 16 - 31	XXX	XXX	XXX	XXX	72.1 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Sep 1 - 15	XXX	XXX	XXX	XXX	67.8 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Sep 16 - 30	XXX	XXX	XXX	XXX	61.8 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Oct 1 - 15	XXX	XXX	XXX	XXX	56.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Oct 16 - 31	XXX	XXX	XXX	XXX	52.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Nov 1 - 15	XXX	XXX	XXX	XXX	48.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Nov 16 - 30	XXX	XXX	XXX	XXX	44.5 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Dec 1 - 31	XXX	XXX	XXX	XXX	49.3 Daily Max	XXX	Daily when Discharging	I-S

Compliance Sampling Location: Outfall 001 (prior to mixing with any other waters).

Other Comments:

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	Maximum	Instant. Maximum		
Flow (MGD)	XXX	Report Daily Max	XXX	XXX	XXX	XXX	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Daily when Discharging	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.12	XXX	0.40	Daily when Discharging	Grab
Temperature (deg F) (ºF) Jan 1 - 31	XXX	XXX	XXX	XXX	47.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Feb 1 - 29	XXX	XXX	XXX	XXX	46.1 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Mar 1 - 31	XXX	XXX	XXX	XXX	58.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Apr 1 - 15	XXX	XXX	XXX	XXX	62.4 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Apr 16 - 30	XXX	XXX	XXX	XXX	60.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) May 1 - 15	XXX	XXX	XXX	XXX	59.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) May 16 - 31	XXX	XXX	XXX	XXX	63.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jun 1 - 15	XXX	XXX	XXX	XXX	66.3 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jun 16 - 30	XXX	XXX	XXX	XXX	70.3 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Jul 1 - 31	XXX	XXX	XXX	XXX	73.3 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Aug 1 - 15	XXX	XXX	XXX	XXX	72.1 Daily Max	XXX	Daily when Discharging	I-S

Outfall 002 , 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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Temperature (deg F) (ºF) Aug 16 - 31	XXX	XXX	XXX	XXX	72.1 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Sep 1 - 15	XXX	XXX	XXX	XXX	67.8 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Sep 16 - 30	XXX	XXX	XXX	XXX	61.8 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Oct 1 - 15	XXX	XXX	XXX	XXX	56.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Oct 16 - 31	XXX	XXX	XXX	XXX	52.9 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Nov 1 - 15	XXX	XXX	XXX	XXX	48.2 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Nov 16 - 30	XXX	XXX	XXX	XXX	44.5 Daily Max	XXX	Daily when Discharging	I-S
Temperature (deg F) (ºF) Dec 1 - 31	XXX	XXX	XXX	XXX	49.3 Daily Max	XXX	Daily when Discharging	I-S

Compliance Sampling Location: Outfall 002 (prior to mixing with any other waters)

Other Comments:

ATTACHMENT A

1A	B	C	D	E	F	G
2	**TRC EVALUATION**			**Symmco Manufacturing**		
3	Input appropriate values in B4:B8 and E4:E7					
4	0.717	= Q stream (cfs)		0.5	= CV Daily	
5	0.6	= Q discharge (MGD)		0.5	= CV Hourly	
6	30	= no. samples		1	= AFC_Partial Mix Factor	
7	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
8	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
9	0.5	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
	0	= % Factor of Safety (FOS)		0	=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA afc =	0.265	1.3.2.iii	WLA cfc = 0.251
12	PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc=	0.099	5.1d	LTA_cfc = 0.146
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	5.1f	AML MULT =	1.231		
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.122	AFC	
18			INST MAX LIMIT (mg/l) =	0.398		

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)

Flow Data for Thermal Discharge Analysis

Facility: **Symmco Manufacturing**
Permit Number: PA0272523
Stream Name: Stump Creek
Analyst/Engineer: A. Pesek
Stream Q7-10 (cfs): 0.717

	Facility Flows				Stream Flows			
	Intake (Stream) (MGD)	Intake (External) (MGD)	Consumptive Loss (MGD)	Discharge Flow (MGD)	PMF	Upstream Stream Flow (cfs)	Adjusted Stream Flow (cfs)	Downstream Stream Flow (cfs)
Jan 1-31	0	0.6	0	0.6	1.00	2.29	2.29	3.22
Feb 1-29	0	0.6	0	0.6	1.00	2.51	2.51	3.44
Mar 1-31	0	0.6	0	0.6	1.00	5.02	5.02	5.95
Apr 1-15	0	0.6	0	0.6	1.00	6.67	6.67	7.60
Apr 16-30	0	0.6	0	0.6	1.00	6.67	6.67	7.60
May 1-15	0	0.6	0	0.6	1.00	3.66	3.66	4.58
May 16-31	0	0.6	0	0.6	1.00	3.66	3.66	4.58
Jun 1-15	0	0.6	0	0.6	1.00	2.15	2.15	3.08
Jun 16-30	0	0.6	0	0.6	1.00	2.15	2.15	3.08
Jul 1-31	0	0.6	0	0.6	1.00	1.22	1.22	2.15
Aug 1-15	0	0.6	0	0.6	1.00	1.00	1.00	1.93
Aug 16-31	0	0.6	0	0.6	1.00	1.00	1.00	1.93
Sep 1-15	0	0.6	0	0.6	1.00	0.79	0.79	1.72
Sep 16-30	0	0.6	0	0.6	1.00	0.79	0.79	1.72
Oct 1-15	0	0.6	0	0.6	1.00	0.86	0.86	1.79
Oct 16-31	0	0.6	0	0.6	1.00	0.86	0.86	1.79
Nov 1-15	0	0.6	0	0.6	1.00	1.15	1.15	2.08
Nov 16-30	0	0.6	0	0.6	1.00	1.15	1.15	2.08
Dec 1-31	0	0.6	0	0.6	1.00	1.72	1.72	2.65

Please forward all comments to Tom Starosta at 717-787-4317, tstarosta@state.pa.us.
Version 2.0 -- 07/01/2005 Reference: Implementation Guidance for Temperature Criteria, DEP-ID: 391-2000-017
NOTE: The user can only edit fields that are blue.
NOTE: MGD x 1.547 = cfs.

PA Temperature Criteria and Stream Flow Multipliers

Facility: **Symmco Manufacturing**
Permit Number: PA0272523
Stream: Stump Creek

	WWF Criteria (ºF)	CWF Criteria (ºF)	TSF Criteria (ºF)	316 Criteria (ºF)	Q7-10 Multipliers (Used in Analysis)	Q7-10 Multipliers (Default - Info Only)
Jan 1-31	40	38	40		3.2	3.2
Feb 1-29	40	38	40		3.5	3.5
Mar 1-31	46	42	46		7	7
Apr 1-15	52	48	52		9.3	9.3
Apr 16-30	58	52	58		9.3	9.3
May 1-15	64	54	64		5.1	5.1
May 16-31	72	58	68		5.1	5.1
Jun 1-15	80	60	70		3	3
Jun 16-30	84	64	72		3	3
Jul 1-31	87	66	74		1.7	1.7
Aug 1-15	87	66	80		1.4	1.4
Aug 16-31	87	66	87		1.4	1.4
Sep 1-15	84	64	84		1.1	1.1
Sep 16-30	78	60	78		1.1	1.1
Oct 1-15	72	54	72		1.2	1.2
Oct 16-31	66	50	66		1.2	1.2
Nov 1-15	58	46	58		1.6	1.6
Nov 16-30	50	42	50		1.6	1.6
Dec 1-31	42	40	42		2.4	2.4

NOTES:
WWF= Warm water fishes
CWF= Cold water fishes
TSF= Trout stocking

Thermal Discharge Recommended Permit Limits

Cold Water Fishes (CWF) Stream

Facility: **Symmco Manufacturing**
Permit Number: PA0272523
Stream: Stump Creek

	CWF Ambient Stream Temperature (ºF) (Default)	Ambient Stream Temperature (ºF) (Site-specific data)	Target Maximum Stream Temp.[1] (ºF)	CWF Daily WLA[2] (Million BTUs/day)	CWF Daily WLA[3] (ºF)	at Discharge Flow (MGD)	PMF
Jan 1-31	34	0	38	N/A -- Case 2	47.9	0.6	1.00
Feb 1-29	35	0	38	N/A -- Case 2	46.1	0.6	1.00
Mar 1-31	39	0	42	N/A -- Case 2	58.2	0.6	1.00
Apr 1-15	46	0	48	N/A -- Case 2	62.4	0.6	1.00
Apr 16-30	52	0	53	N/A -- Case 2	60.2	0.6	1.00
May 1-15	55	0	56	N/A -- Case 2	59.9	0.6	1.00
May 16-31	59	0	60	N/A -- Case 2	63.9	0.6	1.00
Jun 1-15	63	0	64	N/A -- Case 2	66.3	0.6	1.00
Jun 16-30	67	0	68	N/A -- Case 2	70.3	0.6	1.00
Jul 1-31	71	0	72	N/A -- Case 2	73.3	0.6	1.00
Aug 1-15	70	0	71	N/A -- Case 2	72.1	0.6	1.00
Aug 16-31	70	0	71	N/A -- Case 2	72.1	0.6	1.00
Sep 1-15	66	0	67	N/A -- Case 2	67.8	0.6	1.00
Sep 16-30	60	0	61	N/A -- Case 2	61.8	0.6	1.00
Oct 1-15	55	0	56	N/A -- Case 2	56.9	0.6	1.00
Oct 16-31	51	0	52	N/A -- Case 2	52.9	0.6	1.00
Nov 1-15	46	0	47	N/A -- Case 2	48.2	0.6	1.00
Nov 16-30	40	0	42	N/A -- Case 2	44.5	0.6	1.00
Dec 1-31	35	0	40	N/A -- Case 2	49.3	0.6	1.00

[1] This is the maximum of the CWF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for CWF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1ºF above ambient stream temperature is allocated.

[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.

[3] The WLA expressed in ºF is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2). WLAs greater than 110ºF are displayed as 110ºF.