Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0221872**
Facility Type	**Industrial**	APS ID	**1093881**
Major / Minor	**Minor**	Authorization ID	**1535884**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Universal Stainless & Alloy Products, Inc.**	Facility Name	**Universal Stainless & Alloy Products**
Applicant Address	600 Mayer Street Bridgeville, PA 15017-2705	Facility Address	121 Caldwell Street Titusville, PA 16354-2055
Applicant Contact	Mike Alderson	Facility Contact	Jerrett Nollinger
Applicant Phone	(330) 599-7044	Facility Phone	(814) 827-9723
Client ID	5954	Site ID	486539
SIC Code	3312	Municipality	Titusville City
SIC Description	Manufacturing - Blast Furnaces And Steel Mills	County	Crawford
Date Application Received	June 30, 2023	EPA Waived?	Yes
Date Application Accepted	July 7, 2025	If No, Reason	
Purpose of Application	Renewal of an NPDES Permit for an existing discharge of noncontact cooling water, miscellaneous wastewater and stormwater.		

Summary of Review

Universal Stainless & Alloy Products, Inc. applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of a NPDES permit for the Universal Stainless & Alloy Products. The permit was last reissued on December 11, 2018, with an effective date of January 1, 2019. The permit expired on December 31, 2023, but the terms and conditions of the permit have been administratively extended since that time.

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes a description of the facility, a description of the facility's receiving waters, a description of the facility's receiving waters attainment/non-attainment assessment status, and a description of any changes to the proposed monitoring/sampling frequency. This Fact Sheet provides the justification for the proposed NPDES effluent limits derived from technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, and anti-backsliding.

No changes to discharge quality or quantity are being proposed as part of the NPDES renewal.

The existing permit and proposed permit differ as follows:

- For the previous permit renewal, the facility was classified as a minor IW facility with ELG. However, for this current renewal, **the facility is now classified as a as a minor IW facility without ELG**. This change is made because no ELGs are applicable to any of the waste streams.

- Temperature limits have been added for Outfall 001.

Approve	Deny	Signatures	Date
X		*Steven C. Roselle (via electronic signature)* Steven C. Roselle, P.E. / Environmental Engineer	August 18, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	August 18, 2025

Summary of Review

There are currently no open violations listed in EFACTS for this permittee (08/18/2025).

The facility has two stormwater-only outfalls (Outfalls 006 and 007), and one outfall that receives a combination of non-process wastewater and stormwater (Outfall 001). Also associated with Outfall 001 is a wet weather overflow (Outfall 005). Outfalls 006 and 007 stormwater discharges are “No-Exposure” discharges.

The proposed permit will expire five (5) years from the effective date.

Public Participation

Based on the review in this report, it is recommended that the permit be drafted. 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.

Any additional information or public review of documents associated with the discharge or facility may be available at PA DEP Northwest Regional Office (NWRO), 230 Chestnut Street, Meadville, PA 16335. To make an appointment for file review, contact the NWRO File Review Coordinator at 814-332-6945.

1.0 Applicant

1.1 General Information

This fact sheet summarizes PA Department of Environmental Protection's review for the NPDES renewal for the following subject facility.

Facility Name:	Universal Stainless & Alloy Products
NPDES Permit #	PA0221872
Physical Address:	600 Mayer Street Bridgeville, PA 15017-2705
Site Contact:	Jerrett Nollinger Engineering Manager 121 Caldwell Street Titusville, PA 16354-2055 (814) 827-9723 x33221 j.nollinger@univstainless.com
Consultant:	Joseph Westrick Engineer-in-Training SE Technologies, LLC. 500 Mosites Way, Suite 100 Pittsburgh, PA 15205 412-221-1100, Ext. 2223 jwestrick@se-env.com

2.0 Facility Summay

2.1.1 Site location

A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

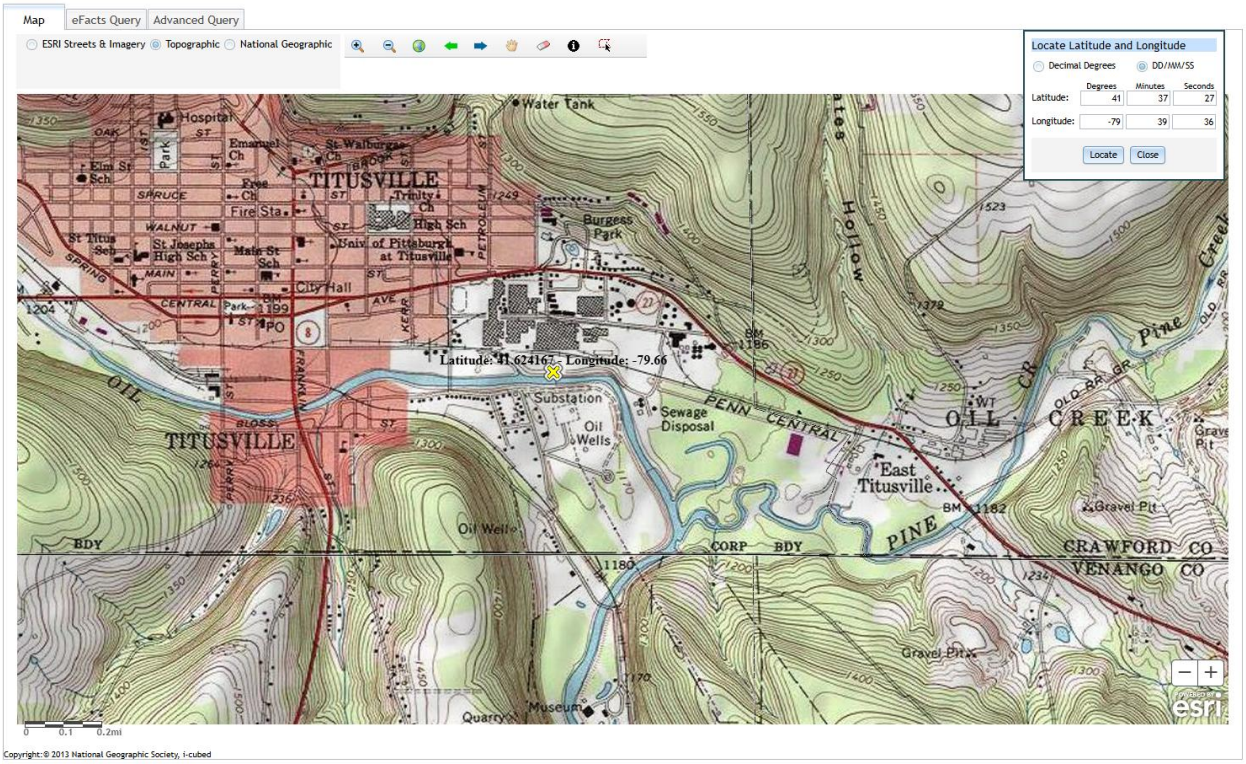
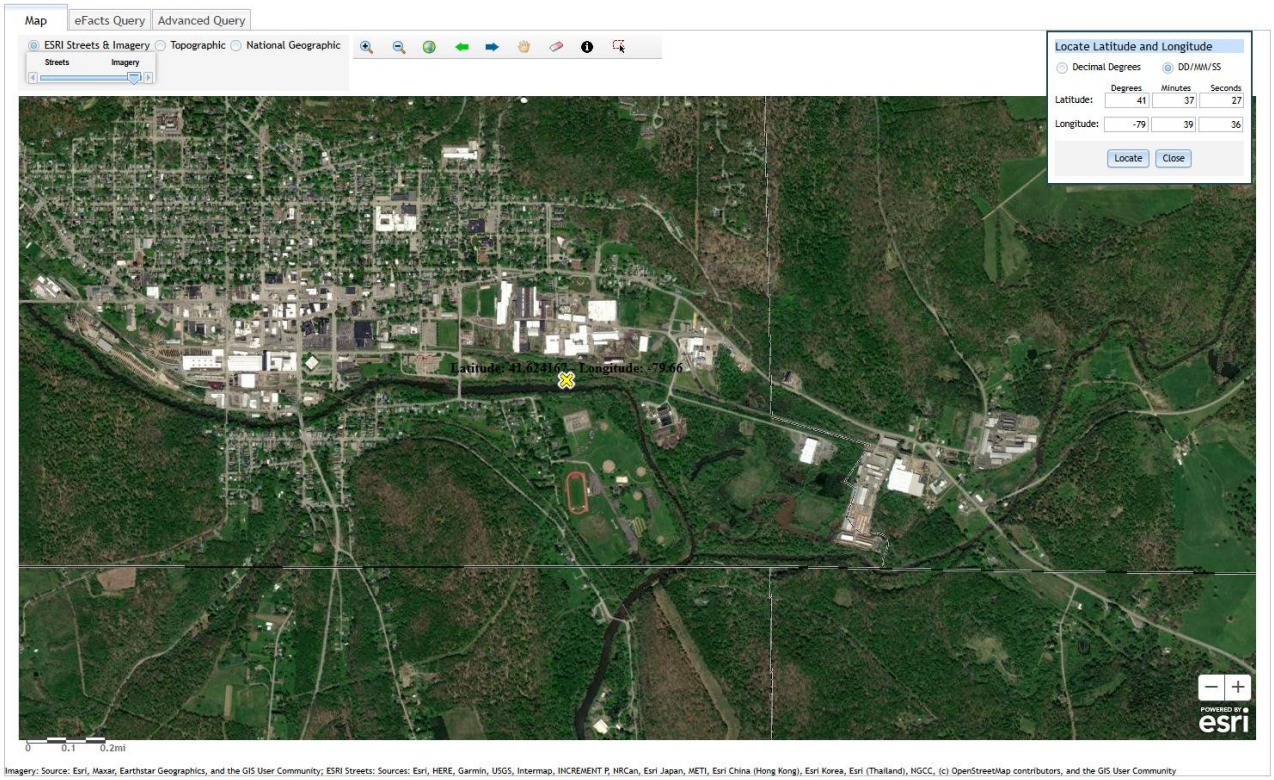


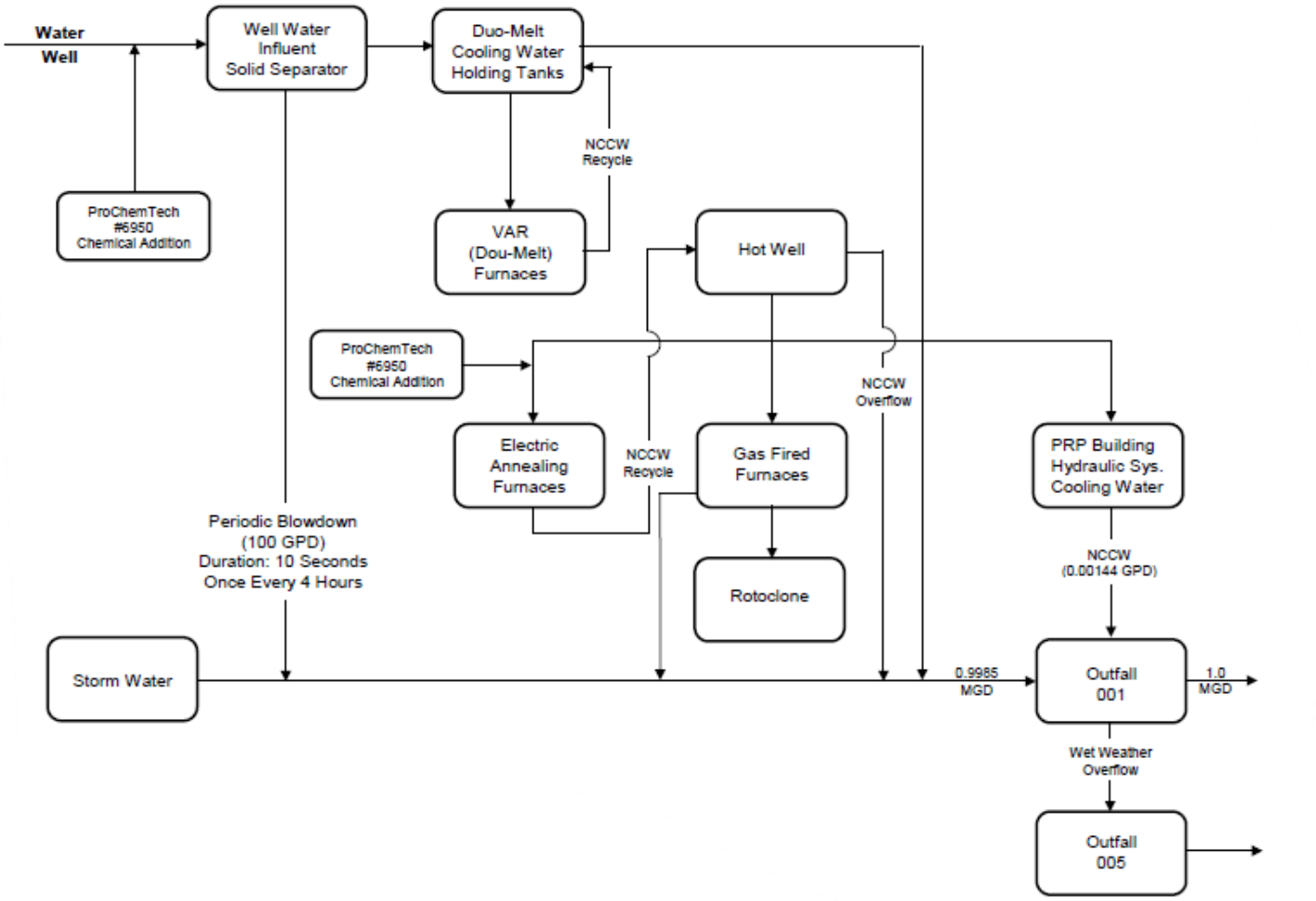
Figure 2: Aerial Photograph of the subject facility



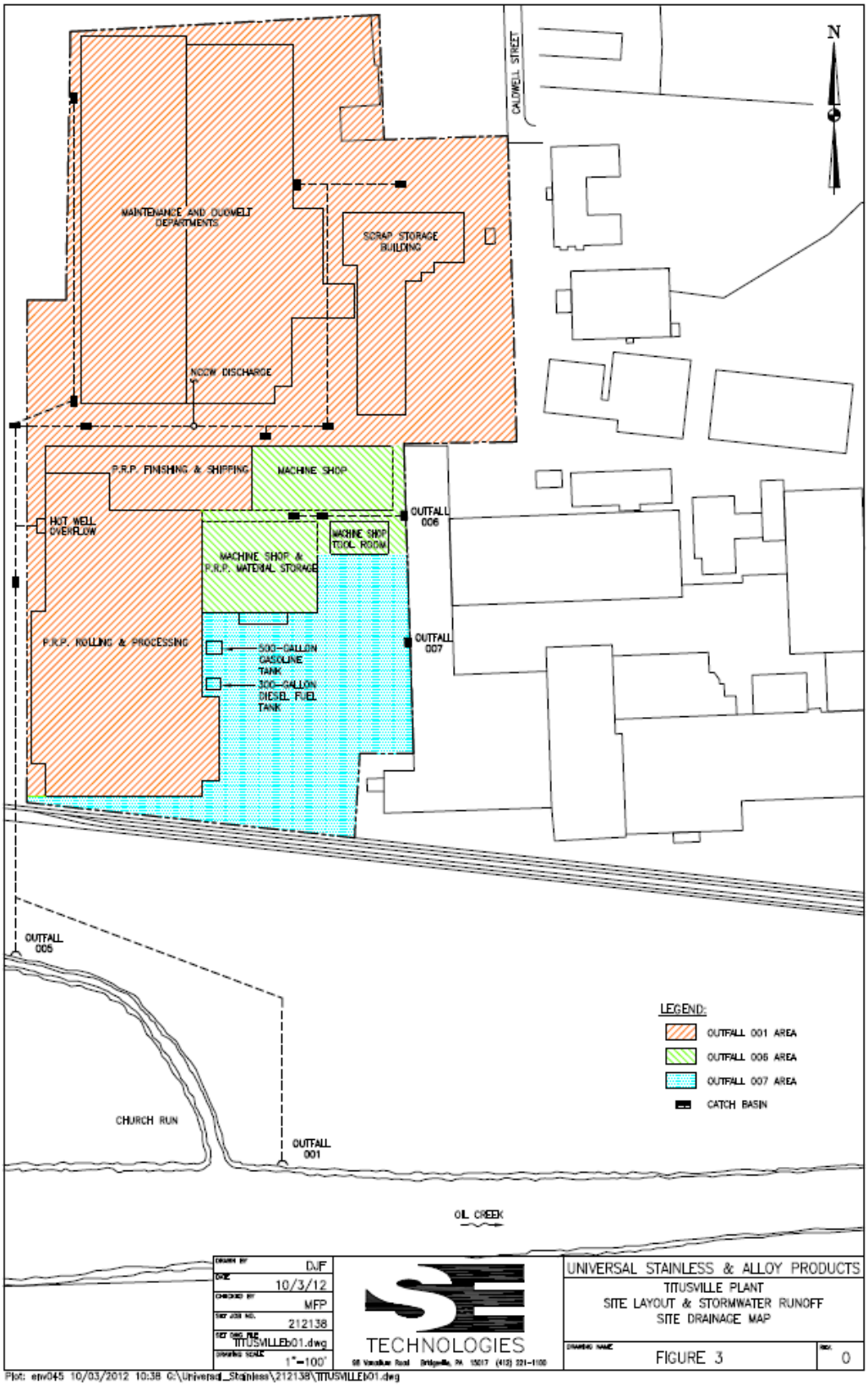
2.1.2 Description of Process Flow

The facility has two stormwater-only outfalls (Outfalls 006 and 007) and one outfall that receives a combination of non-process wastewater and stormwater (Outfall 001). Also associated with Outfall 001 is a wet weather overflow (Outfall 005).

The process is depicted below as shown in the application:



The site layout and stormwater runoff site drainage map is depicted below in the application.



2.1.3 Operational Considerations- Chemical Additives

The subject facility reports that it utilizes the following chemicals as part of their operations.

- ProChem Tech # 6950 for Water Scale & Corrosion Control for Outfalls 001 and 005. This chemical is used daily. Maximum usage rate is 15 lbs./day.

2.2 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the tables below for Outfall 001, and Outfall 005.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 41° 37' 27.00" , **Longitude** 79° 39' 36.00" , **River Mile Index** 18.1 , **Stream Code** 54128

Receiving Waters: Oil Creek

Type of Effluent: Noncontact Cooling Water (NCCW), miscellaneous discharges from the precision rolled products building, and stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

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	5/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	5/week	Grab
Temperature (°F) Jun 1 - Nov 30	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/week	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001 (prior to mixing with any other waters)

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 005 , **Latitude** 41° 37' 32.00" , **Longitude** 79° 39' 40.00" , **River Mile Index** 0.07 , **Stream Code** 54333

Receiving Waters: Church Run

Type of Effluent: Emergency Overflow (IW), Stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

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	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	Daily when Discharging	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 005 (prior to mixing with any other waters)

2.3 Requirements Applicable to Stormwater Outfalls

The permittee is authorized to discharge non-polluting stormwater from its site, alone or in combination with other wastewaters, through the following outfalls:

Outfall No.	Area Drained (ft^2)	Latitude	Longitude	Description
001	359,100	41° 37' 27"	79° 39' 36"	Paved drive surfaces
005	359,100	41° 37' 32"	79° 39' 40"	Paved drive surfaces
006	34,300	41° 37' 34"	79° 39' 40"	Paved drive surfaces
007	70,900	41° 37' 29"	79° 39' 48"	Paved drive surfaces & outside tanks

Monitoring requirements apply to Outfalls No. 1 and No. 005 per section 2.2.

3.0 Facility NPDES Compliance History

3.1 Summary of Inspections and Open Violations

A summary of Inspections and DMR data follows.

Compliance History	
Summary of DMRs:	A summary of DMR data is presented on the next page covering the period from June 2024 thru May 2025.
Summary of Inspections Since Last Renewal (January 1, 2019)	1. Date: 5/21/2020. Inspection Type: Administrative/File Review. Inspection Results: No Violations Noted. 2. Date: 5/25/2021. Inspection Type: Administrative/File Review. Inspection Results: No Violations Noted. 3. Date: 11/03/2021. Inspection Type: Compliance Evaluation. Inspection Results: No Violations Noted.
Other Comments:	1. DEP's database shows there are no open violations associated with this facility or permittee.

3.2 Summary of DMR Data

Outfall 001

A review of approximately 1-year of DMR data shows that the monthly average flow data for the facility of 0.643 MGD was below the permitted effluent discharge rate of 1.0 MGD. Values for minimum and maximum pH were within the permit limits of 6.0 – 9.0 S.U.

Outfall 005

There were no discharge events to Outfall 005, Emergency Overflow (IW) Stormwater, during the current permit renewal cycle.

Stormwater Monitoring Data

The table below summarizes stormwater sampling submitted with the NPDES application. Stormwater samples for Module were collected at Outfall 006. The applicant indicates that Outfall 006 is representative of the discharge at Outfall 007.

OUTFALL NO.:	006					
1. You must provide the results of at least one analysis for every pollutant identified in the table below.						
Pollutant	Average Concentration		Maximum Concentration		No. Storm Events Sampled	Quantitation Limit
	Grab Sample	Flow-Weighted Composite Sample	Grab Sample	Flow-Weighted Composite Sample		
Oil and Grease (mg/L)	<5.0	N/A	<5.0	N/A	1	5.0
BOD5 (mg/L)	<4.0	N/A	<4.0	N/A	1	4.0
COD (mg/L)	<5.00	N/A	<5.00	N/A	1	5.0
TSS (mg/L)	<5.0	N/A	<5.0	N/A	1	5.0
Total Nitrogen (mg/L)	>3.38	N/A	>3.38	N/A	1	2.0
Total Phosphorus (mg/L)	0.288	N/A	0.288	N/A	1	0.020
pH (S.U.)	Min: 7.33	Max: 7.33	Min:	Max:	1	XXX

DMR Data for Outfall 001 (from June 1, 2024, to May 31, 2025)

Parameter	JUN-24	JUL-24	AUG-24	SEP-24	OCT-24	NOV-24	DEC-24	JAN-25	FEB-25	MAR-25	APR-25	MAY-25	Average
Flow (MGD) Average Monthly	0.658	0.654	0.666	0.628	0.62	0.164	0.669	0.66	0.75	0.746	0.72	0.677	0.634
pH (S.U.) Instantaneous Minimum	7.71	7.6	7.61	7.59	7.37	6.2	7.2	7.64	7.62	6.9	7.57	7.1	7.3
pH (S.U.) Instantaneous Maximum	8.02	7.93	7.93	8	8.25	7.9	8.07	8.07	7.95	7.1	7.98	7.4	7.9
Temperature (deg F) Daily Maximum	82.2	82.22	80.72	80.42	72.14	62	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Compliance History

3.3 Non-Compliance

3.3.1 Non-Compliance- NPDES Effluent

A summary of the non-compliance to the permit limits for the current permit renewal cycle is as follows:

- None

3.3.2 Non-Compliance- Enforcement Actions

A summary of the non-compliance enforcement actions for the current permit renewal cycle is as follows:

- None

4.0 Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters

The receiving waters has been determined to be Oil Creek for Outfall 001, and Church Run for Oufall 005.

4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is Aqua PA - Emlenton located approximately 48 miles downstream of the subject facility on the Allegheny River. Based upon the distance and the flow rate of the facility, the PWS should not be impacted.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	1.0
Latitude	41º 37' 27.0"	Longitude	79º 39' 36.0"
Quad Name	Titusville South	Quad Code	0608
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		

Receiving Waters	Oil Creek	Stream Code	54128
NHD Com ID	100473127	RMI	18.1
Drainage Area	175	Yield (cfs/mi^2)	0.106
Q_{7-10} Flow (cfs)	18.55	Q_{7-10} Basis	Oil Creek@ Rouseville
Elevation (ft)	1170	Slope (ft/ft)	0.00568
Watershed No.	16-E	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	8.0	WQN 868 (2005-2014)(July-Nov)(median)
Temperature (°C)	20	Default (CWF)
Hardness (mg/L)	81	WQN 868 (2005-2014)(July-Nov)(median)
Other:		

Nearest Downstream Public Water Supply Intake		Aqua Pennsylvania, Inc. Emlenton	
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	48

Changes Since Last Permit Issuance: None

Other Comments: Stormwater Outfalls 006 and 007 also discharge to Oil Creek, via the industrial park's storm sewer, in general vicinity to Outfall 001.

The source of water used for NCCW is groundwater wells.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	0
Latitude	41º 37' 32.0"	Longitude	79º 39' 40.0"
Quad Name	Titusville South	Quad Code	0608
Wastewater Description:	Emergency Overflow (001), Stormwater		

Receiving Waters	Church Run	Stream Code	54333
NHD Com ID	100472993	RMI	0.07
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	16-E	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Aqua Pennsylvania, Inc. - Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	
PWS RMI	90.0	Distance from Outfall (mi)	48.2

Changes Since Last Permit Issuance: None.

Other Comments:

5.0: Overview of Presiding Water Quality Standards

5.1 General

There are at least six (6) different policies which determines the effluent performance limits for the NPDES permit. The policies are technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, total maximum daily loading (TMDL), anti-backsliding, and whole effluent toxicity (WET) The effluent performance limitations enforced are the selected permit limits that is most protective to the designated use of the receiving waters. An overview of each of the policies that are applicable to the subject facility is discussed below.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 1.0
Latitude 41º 37' 27.00" **Longitude** 79º 39' 36.00"
Wastewater Description: Non-contact Cooling Water (NCCW), miscellaneous wastewater, and 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)

Comments: No wastewater is produced by the cold rolling process. Cooling is accomplished by using non-contact cooling water that does not commingle with rolling oils or 'contacts' the steel products. They also stated that any time they hot roll products, the wastewater is toted up and disposed of offsite. A follow-up inspection of the operations by the Department verified this information. Therefore, no ELGs are applicable to any of the waste streams that are discharged onsite under the Hot and Cold Rolling subcategory.

TRC limitations are not necessary for this wastestream because source water is not chlorinated.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" was not necessary for this wastestream.

Thermal Limits

Thermal WQBELs are evaluated using a DEP program called "Thermal Limits Spreadsheet" (see Attachment C) created with Microsoft Excel® for Windows. The program calculates temperature wasteload allocations (WLAs) through the application of a heat transfer equation, which takes two forms in the program depending on the source of the facility's cooling water. In Case 1, intake water to a facility is from the receiving stream upstream of the discharge location. In Case 2, intake water is from a source other than the receiving stream (*e.g.*, municipal water supply). The determination of which case applies to a given discharge is made based on the input data which include the receiving stream flow rate ($Q_{7\text{-}10}$), the stream intake flow rate, external source intake flow rates, consumptive flow rates, and site-specific ambient stream temperatures. Case 1 limits are generally expressed as heat rejection rates while Case 2 limits are usually expressed as temperatures.

DEP's "Implementation Guidance for Temperature Criteria" [Doc. No. 386-2000-001] directs permit writers to assume instantaneous complete mixing of the discharge with the receiving stream when calculating thermal effluent limits unless adverse factors exist. No adverse factors are known to exist in the receiving stream. The TMS modeling derived partial mix factors of 1.0 for both acute and chronic mixing conditions (*i.e.,* the discharge mixes with 100% of the receiving stream in less than fifteen minutes), so the assumption of instantaneous complete mixing is generally appropriate. The discharge is analyzed as Case 2 and is modeled using the average discharge flow rate (1.0 MGD) with limits expressed as temperatures.

The results of the thermal discharge analysis using the Thermal Discharge Limit Calculation Spreadsheet) show that the temperature WQBELs ("Allowable Discharge Temp.") in the table below apply to Outfall 001.

Period	Default Ambient Stream Temp. (°F)	Allowable Downstream Temp. (°F)	Allowable Discharge Temp. (°F)
Jan 1-31	34	38	110.0
Feb 1-29	35	38	110.0
Mar 1-31	39	42	110.0
Apr 1-15	46	48	110.0
Apr 16-30	52	53	110.0
May 1-15	55	56	110.0
May 16-31	59	60	110.0
Jun 1-15	63	64	100.0
Jun 16-30	67	68	104.0
July 1-31	71	72	92.4
Aug 1-15	70	71	87.8
Aug 16-31	70	71	87.8
Sep 1-15	66	67	80.2
Sep 16-30	60	61	74.2
Oct 1-15	55	56	70.4
Oct 16-31	51	52	66.4
Nov 1-15	46	47	66.2
Nov 16-30	40	42	80.4
Dec 1-31	35	40	110.0

The temperature limits are imposed in accordance with the thermal model as a result of analysis of temperature data from the DMR's.

Best Professional Judgment (BPJ) Limitations

One chemical additive is listed in the application as being used. The Department previous approved the use of this additive at the stated usage rates. Therefore, no additional evaluation or approval is necessary at this time to continue its use.

Anti-Backsliding

No backsliding is proposed as part of this permit renewal.

Development of Effluent Limitations

Outfall No. 005 **Design Flow (MGD)** 0
Latitude 41º 37' 32.00" **Longitude** 79º 39' 40.00"
Wastewater Description: Emergency Overflow (001), 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)

Water Quality-Based Limitations

N/A

Best Professional Judgment (BPJ) Limitations

N/A

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 006 **Design Flow (MGD)** 0
Latitude 41º 37' 34.00" **Longitude** 79º 39' 40.00"
Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

Comments: N/A

Water Quality-Based Limitations

Comments: N/A

Best Professional Judgment (BPJ) Limitations

Comments: This outfall is a no exposure outfall. Effluent monitoring requirements do not apply.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No.	007	**Design Flow (MGD)**	0
Latitude	41º 37' 29.00"	**Longitude**	79º 39' 48.00"

Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

Comments: N/A

Water Quality-Based Limitations

Comments: N/A

Best Professional Judgment (BPJ) Limitations

Comments: This outfall is a no exposure outfall. Effluent monitoring requirements do not apply.

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	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	5/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	5/week	Grab
Temperature (°F) Jan 1 – 31	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) Feb 1 – 29	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) Mar 1 – 31	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) Apr 1 – 15	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) Apr 16 – 30	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) May 1 – 15	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) May 16 – 31	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S
Temperature (°F) Jun 1 – 15	XXX	XXX	XXX	XXX	100.0	XXX	Continuous	I-S
Temperature (°F) Jun 16 – 30	XXX	XXX	XXX	XXX	104.0	XXX	Continuous	I-S
Temperature (°F) Jul 1 – 31	XXX	XXX	XXX	XXX	92.4	XXX	Continuous	I-S
Temperature (°F) Aug 1 – 15	XXX	XXX	XXX	XXX	87.8	XXX	Continuous	I-S
Temperature (°F) Aug 16 – 31	XXX	XXX	XXX	XXX	87.8	XXX	Continuous	I-S

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		
Temperature (°F) Sep 1 – 15	XXX	XXX	XXX	XXX	80.2	XXX	Continuous	I-S
Temperature (°F) Sep 16 – 30	XXX	XXX	XXX	XXX	74.2	XXX	Continuous	I-S
Temperature (°F) Oct 1 – 15	XXX	XXX	XXX	XXX	70.4	XXX	Continuous	I-S
Temperature (°F) Oct 16 – 31	XXX	XXX	XXX	XXX	66.4	XXX	Continuous	I-S
Temperature (°F) Nov 1 – 15	XXX	XXX	XXX	XXX	66.2	XXX	Continuous	I-S
Temperature (°F) Nov 16 – 30	XXX	XXX	XXX	XXX	80.4	XXX	Continuous	I-S
Temperature (°F) Dec 1 – 31	XXX	XXX	XXX	XXX	110.0	XXX	Continuous	I-S

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

Other Comments: N/A

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 005, 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	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	Daily when Discharging	Grab

Compliance Sampling Location: Outfall 005 (prior to mixing with any other waters)

Other Comments: N/A

Permit No. PA0025470

Tools and References Used to Develop Permit	
☐	WQM 7.0 for Windows Model
☒	Toxics Management Spreadsheet (See Attachment **A**)
☐	TRC Model Spreadsheet
☐	Temperature Model Spreadsheet
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 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, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 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, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP:
☒	Other: Appendix **B** – DMR Data, Attachment **C** – Thermal Discharge Analysis

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Attachment A

Toxics Management Spreadsheet

Permit No. PA0025470

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Universal Stainless & Alloy Products** NPDES Permit No.: **PA0221872** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Noncontact cooling water, misc. stormwate**

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
1	242	8.5						

					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
Group 1	Total Dissolved Solids (PWS)	mg/L		394									
	Chloride (PWS)	mg/L		69.3									
	Bromide	mg/L		0.056									
	Sulfate (PWS)	mg/L		17.2									
	Fluoride (PWS)	mg/L	<	0.1									
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L											
	Total Arsenic	µg/L											
	Total Barium	µg/L											
	Total Beryllium	µg/L											
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L											
	Hexavalent Chromium	µg/L											
	Total Cobalt	µg/L											
	Total Copper	mg/L											
	Free Cyanide	µg/L											
	Total Cyanide	µg/L											
	Dissolved Iron	µg/L											
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L											
	Total Selenium	µg/L											
	Total Silver	µg/L											
	Total Thallium	µg/L											
	Total Zinc	mg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Universal Stainless & Alloy Products, NPDES Permit No. PA0221872, Outfall 001

Instructions | Discharge | Stream

Receiving Surface Water Name: **Oil Creek**

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	054128	18.1	1170	175			Yes
End of Reach 1	054128	0	1169	176			Yes

$Q_{7\text{-}10}$

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	18.1	0.1										100	7		
End of Reach 1	0	0.1													

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	18.1														
End of Reach 1	0														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Universal Stainless & Alloy Products, NPDES Permit No. PA0221872, Outfall 001

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

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 15 PMF: 0.077 Analysis Hardness (mg/l): 175.8 Analysis pH: 7.32

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	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 720 PMF: 0.535 Analysis Hardness (mg/l): 120.14 Analysis pH: 7.06

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	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 720 PMF: 0.535 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	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	

☑ ***CRL*** CCT (min): 720 PMF: 0.841 Analysis Hardness (mg/l): N/A Analysis pH: N/A

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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	
Fluoride (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)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	Discharge Conc < TQL

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Attachment B - DMR Data

Permit No. PA0025470

TEMPERATURE DATA

PERMIT	MONITORING START DATE	MONITORING END DATE	OUTFALL	PARAMETER	CONC 2 VALUE	CONC 2 SBC	SAMPLE FREQUENCY
PA0221872	06/01/2019	06/30/2019	001	Temp. (deg F)	58.2	Daily Max.	1/week
PA0221872	07/01/2019	07/31/2019	001	Temp. (deg F)	70.8	Daily Max.	5/week
PA0221872	08/01/2019	08/31/2019	001	Temp. (deg F)	72.88	Daily Max.	5/week
PA0221872	09/01/2019	09/30/2019	001	Temp. (deg F)	77.9	Daily Max.	5/week
PA0221872	10/01/2019	10/31/2019	001	Temp. (deg F)	84.2	Daily Max.	1/week
PA0221872	11/01/2019	11/30/2019	001	Temp. (deg F)	73	Daily Max.	1/week
PA0221872	06/01/2020	06/30/2020	001	Temp. (deg F)	66.56	Daily Max.	1/week
PA0221872	07/01/2020	07/31/2020	001	Temp. (deg F)	64.7	Daily Max.	1/week
PA0221872	08/01/2020	08/31/2020	001	Temp. (deg F)	68.36	Daily Max.	1/week
PA0221872	09/01/2020	09/30/2020	001	Temp. (deg F)	69.26	Daily Max.	1/week
PA0221872	10/01/2020	10/31/2020	001	Temp. (deg F)	60.08	Daily Max.	1/week
PA0221872	11/01/2020	11/30/2020	001	Temp. (deg F)	59	Daily Max.	1/week
PA0221872	06/01/2021	06/30/2021	001	Temp. (deg F)	77.36	Daily Max.	1/week
PA0221872	07/01/2021	07/31/2021	001	Temp. (deg F)	75.38	Daily Max.	1/week
PA0221872	08/01/2021	08/31/2021	001	Temp. (deg F)	76.64	Daily Max.	1/week
PA0221872	09/01/2021	09/30/2021	001	Temp. (deg F)	77.54	Daily Max.	1/week
PA0221872	10/01/2021	10/31/2021	001	Temp. (deg F)	76.1	Daily Max.	1/week
PA0221872	11/01/2021	11/30/2021	001	Temp. (deg F)	74.66	Daily Max.	1/week
PA0221872	06/01/2022	06/30/2022	001	Temp. (deg F)	76.1	Daily Max.	1/week
PA0221872	07/01/2022	07/31/2022	001	Temp. (deg F)	79.52	Daily Max.	1/week
PA0221872	08/01/2022	08/31/2022	001	Temp. (deg F)	76.1	Daily Max.	1/week
PA0221872	09/01/2022	09/30/2022	001	Temp. (deg F)	73.4	Daily Max.	1/week
PA0221872	10/01/2022	10/31/2022	001	Temp. (deg F)	70.16	Daily Max.	1/week
PA0221872	11/01/2022	11/30/2022	001	Temp. (deg F)	74.3	Daily Max.	1/week
PA0221872	06/01/2023	06/30/2023	001	Temp. (deg F)	77.18	Daily Max.	1/week
PA0221872	07/01/2023	07/31/2023	001	Temp. (deg F)	79.7	Daily Max.	1/week
PA0221872	08/01/2023	08/31/2023	001	Temp. (deg F)	76.64	Daily Max.	1/week
PA0221872	09/01/2023	09/30/2023	001	Temp. (deg F)	77	Daily Max.	1/week
PA0221872	10/01/2023	10/31/2023	001	Temp. (deg F)	76.28	Daily Max.	1/week
PA0221872	11/01/2023	11/30/2023	001	Temp. (deg F)	85.46	Daily Max.	1/week
PA0221872	06/01/2024	06/30/2024	001	Temp. (deg F)	82.2	Daily Max.	1/week
PA0221872	07/01/2024	07/31/2024	001	Temp. (deg F)	82.22	Daily Max.	1/week
PA0221872	08/01/2024	08/31/2024	001	Temp. (deg F)	80.72	Daily Max.	1/week
PA0221872	09/01/2024	09/30/2024	001	Temp. (deg F)	80.42	Daily Max.	1/week
PA0221872	10/01/2024	10/31/2024	001	Temp. (deg F)	72.14	Daily Max.	1/week
PA0221872	11/01/2024	11/30/2024	001	Temp. (deg F)	62	Daily Max.	1/week
				Average	**74.0**	Daily Max.	

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pH DATA

PERMIT	MONITORING START DATE	MONITORING END DATE	OUTFALL	Param.	CONC UNITS	Daily Minimum	Daily Maximum
PA0221872	01/01/2019	01/31/2019	001	pH	S.U.	6.89	7.11
PA0221872	02/01/2019	02/28/2019	001	pH	S.U.	6.98	7.2
PA0221872	03/01/2019	03/31/2019	001	pH	S.U.	6.98	7.14
PA0221872	04/01/2019	04/30/2019	001	pH	S.U.	7.1	7.22
PA0221872	05/01/2019	05/31/2019	001	pH	S.U.	6.95	7.25
PA0221872	06/01/2019	06/30/2019	001	pH	S.U.	6.92	7.26
PA0221872	07/01/2019	07/31/2019	001	pH	S.U.	6.23	7.42
PA0221872	08/01/2019	08/31/2019	001	pH	S.U.	6.02	6.99
PA0221872	09/01/2019	09/30/2019	001	pH	S.U.	6.35	6.85
PA0221872	10/01/2019	10/31/2019	001	pH	S.U.	6.32	6.89
PA0221872	11/01/2019	11/30/2019	001	pH	S.U.	6.21	7
PA0221872	12/01/2019	12/31/2019	001	pH	S.U.	6.65	7.42
PA0221872	01/01/2020	01/31/2020	001	pH	S.U.	6.45	7.42
PA0221872	02/01/2020	02/29/2020	001	pH	S.U.	6.63	7.21
PA0221872	03/01/2020	03/31/2020	001	pH	S.U.	6.65	7.12
PA0221872	04/01/2020	04/30/2020	001	pH	S.U.	6.46	7.04
PA0221872	05/01/2020	05/31/2020	001	pH	S.U.	6.42	6.91
PA0221872	06/01/2020	06/30/2020	001	pH	S.U.	6.49	6.88
PA0221872	07/01/2020	07/31/2020	001	pH	S.U.	6.33	7.24
PA0221872	08/01/2020	08/31/2020	001	pH	S.U.	6.23	7.94
PA0221872	09/01/2020	09/30/2020	001	pH	S.U.	6.4	7.84
PA0221872	10/01/2020	10/31/2020	001	pH	S.U.	6.49	7.89
PA0221872	11/01/2020	11/30/2020	001	pH	S.U.	6.98	7.87
PA0221872	12/01/2020	12/31/2020	001	pH	S.U.	6.53	7.58
PA0221872	01/01/2021	01/31/2021	001	pH	S.U.	6.7	6.93
PA0221872	02/01/2021	02/28/2021	001	pH	S.U.	6.36	7.02
PA0221872	03/01/2021	03/31/2021	001	pH	S.U.	6.81	7.26
PA0221872	04/01/2021	04/30/2021	001	pH	S.U.	6.87	7.3
PA0221872	05/01/2021	05/31/2021	001	pH	S.U.	6.78	7.33
PA0221872	06/01/2021	06/30/2021	001	pH	S.U.	6.45	7.25
PA0221872	07/01/2021	07/31/2021	001	pH	S.U.	6.1	7.06
PA0221872	08/01/2021	08/31/2021	001	pH	S.U.	6.7	7.69
PA0221872	09/01/2021	09/30/2021	001	pH	S.U.	6.85	7.46
PA0221872	10/01/2021	10/31/2021	001	pH	S.U.	6.77	7.73
PA0221872	11/01/2021	11/30/2021	001	pH	S.U.	7.31	7.66
PA0221872	12/01/2021	12/31/2021	001	pH	S.U.	7.01	7.7
PA0221872	01/01/2022	01/31/2022	001	pH	S.U.	6.74	7.54
PA0221872	02/01/2022	02/28/2022	001	pH	S.U.	7.3	7.59
PA0221872	03/01/2022	03/31/2022	001	pH	S.U.	7.52	7.73
PA0221872	04/01/2022	04/30/2022	001	pH	S.U.	7.04	7.74
PA0221872	05/01/2022	05/31/2022	001	pH	S.U.	7.02	7.74
PA0221872	06/01/2022	06/30/2022	001	pH	S.U.	7.23	8.19
PA0221872	07/01/2022	07/31/2022	001	pH	S.U.	7.22	7.97
PA0221872	08/01/2022	08/31/2022	001	pH	S.U.	7.28	7.53
PA0221872	09/01/2022	09/30/2022	001	pH	S.U.	7.41	7.93

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pH DATA

PERMIT	MONITORING START DATE	MONITORING END DATE	OUTFALL	Param.	CONC UNITS	Daily Minimum	Daily Maximum
PA0221872	10/01/2022	10/31/2022	001	pH	S.U.	7.43	7.9
PA0221872	11/01/2022	11/30/2022	001	pH	S.U.	7.5	8.02
PA0221872	12/01/2022	12/31/2022	001	pH	S.U.	7.43	8.22
PA0221872	01/01/2023	01/31/2023	001	pH	S.U.	7.74	8.2
PA0221872	02/01/2023	02/28/2023	001	pH	S.U.	7.79	8.09
PA0221872	03/01/2023	03/31/2023	001	pH	S.U.	6.73	8.46
PA0221872	04/01/2023	04/30/2023	001	pH	S.U.	7.37	7.99
PA0221872	05/01/2023	05/31/2023	001	pH	S.U.	7.23	7.91
PA0221872	06/01/2023	06/30/2023	001	pH	S.U.	7.42	7.9
PA0221872	07/01/2023	07/31/2023	001	pH	S.U.	7.31	7.96
PA0221872	08/01/2023	08/31/2023	001	pH	S.U.	7.54	7.89
PA0221872	09/01/2023	09/30/2023	001	pH	S.U.	7.44	7.95
PA0221872	10/01/2023	10/31/2023	001	pH	S.U.	7.61	8
PA0221872	11/01/2023	11/30/2023	001	pH	S.U.	7.22	8.02
PA0221872	12/01/2023	12/31/2023	001	pH	S.U.	7.62	8.11
PA0221872	01/01/2024	01/31/2024	001	pH	S.U.	7.81	8.24
PA0221872	02/01/2024	02/29/2024	001	pH	S.U.	7.88	8.22
PA0221872	03/01/2024	03/31/2024	001	pH	S.U.	7.93	8.15
PA0221872	04/01/2024	04/30/2024	001	pH	S.U.	7.86	8.12
PA0221872	05/01/2024	05/31/2024	001	pH	S.U.	7.57	8
PA0221872	06/01/2024	06/30/2024	001	pH	S.U.	7.71	8.02
PA0221872	07/01/2024	07/31/2024	001	pH	S.U.	7.6	7.93
PA0221872	08/01/2024	08/31/2024	001	pH	S.U.	7.61	7.93
PA0221872	09/01/2024	09/30/2024	001	pH	S.U.	7.59	8
PA0221872	10/01/2024	10/31/2024	001	pH	S.U.	7.37	8.25
PA0221872	11/01/2024	11/30/2024	001	pH	S.U.	6.2	7.9
PA0221872	12/01/2024	12/31/2024	001	pH	S.U.	7.2	8.07
PA0221872	01/01/2025	01/31/2025	001	pH	S.U.	7.64	8.07
PA0221872	02/01/2025	02/28/2025	001	pH	S.U.	7.62	7.95
PA0221872	03/01/2025	03/31/2025	001	pH	S.U.	6.9	7.1
PA0221872	04/01/2025	04/30/2025	001	pH	S.U.	7.57	7.98
PA0221872	05/01/2025	05/31/2025	001	pH	S.U.	7.1	7.4
					Daily Minimum and Daily Maximum Averages	**7.03**	**7.65**
					Average of Daily Minimum and Daily Maximum Averages	**7.34**	

Permit No. PA0025470

Attachment C - Thermal Discharge Analysis

Permit No. PA0025470

Flow Data for Thermal Discharge Analysis

Facility: Universal Stainless and Alloy Products, Inc.
Permit Number: PA0221872
Stream Name: Oil Creek
Analyst/Engineer: Steve Roselle
Stream Q7-10 (cfs): 18.55

	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	1	0	1	1.00	59.36	59.36	60.91
Feb 1-29	0	1	0	1	1.00	64.93	64.93	66.47
Mar 1-31	0	1	0	1	1.00	129.85	129.85	131.40
Apr 1-15	0	1	0	1	1.00	172.52	172.52	174.06
Apr 16-30	0	1	0	1	1.00	172.52	172.52	174.06
May 1-15	0	1	0	1	1.00	94.61	94.61	96.15
May 16-31	0	1	0	1	1.00	94.61	94.61	96.15
Jun 1-15	0	1	0	1	1.00	55.65	55.65	57.20
Jun 16-30	0	1	0	1	1.00	55.65	55.65	57.20
Jul 1-31	0	1	0	1	1.00	31.54	31.54	33.08
Aug 1-15	0	1	0	1	1.00	25.97	25.97	27.52
Aug 16-31	0	1	0	1	1.00	25.97	25.97	27.52
Sep 1-15	0	1	0	1	1.00	20.41	20.41	21.95
Sep 16-30	0	1	0	1	1.00	20.41	20.41	21.95
Oct 1-15	0	1	0	1	1.00	22.26	22.26	23.81
Oct 16-31	0	1	0	1	1.00	22.26	22.26	23.81
Nov 1-15	0	1	0	1	1.00	29.68	29.68	31.23
Nov 16-30	0	1	0	1	1.00	29.68	29.68	31.23
Dec 1-31	0	1	0	1	1.00	44.52	44.52	46.07

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.

Thermal Discharge Limit Calc-Universal Stainless

Permit No. PA0025470

Thermal Discharge Recommended Permit Limits

Cold Water Fishes (CWF) Stream

Facility: **Universal Stainless and Alloy Products, Inc.**
Permit Number: PA0221872
Stream: Oil 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	110.0	1	1.00
Feb 1-29	35	0	38	N/A -- Case 2	110.0	1	1.00
Mar 1-31	39	0	42	N/A -- Case 2	110.0	1	1.00
Apr 1-15	46	0	48	N/A -- Case 2	110.0	1	1.00
Apr 16-30	52	0	53	N/A -- Case 2	110.0	1	1.00
May 1-15	55	0	56	N/A -- Case 2	110.0	1	1.00
May 16-31	59	0	60	N/A -- Case 2	110.0	1	1.00
Jun 1-15	63	0	64	N/A -- Case 2	100.0	1	1.00
Jun 16-30	67	0	68	N/A -- Case 2	104.0	1	1.00
Jul 1-31	71	0	72	N/A -- Case 2	92.4	1	1.00
Aug 1-15	70	0	71	N/A -- Case 2	87.8	1	1.00
Aug 16-31	70	0	71	N/A -- Case 2	87.8	1	1.00
Sep 1-15	66	0	67	N/A -- Case 2	80.2	1	1.00
Sep 16-30	60	0	61	N/A -- Case 2	74.2	1	1.00
Oct 1-15	55	0	56	N/A -- Case 2	70.4	1	1.00
Oct 16-31	51	0	52	N/A -- Case 2	66.4	1	1.00
Nov 1-15	46	0	47	N/A -- Case 2	66.2	1	1.00
Nov 16-30	40	0	42	N/A -- Case 2	80.4	1	1.00
Dec 1-31	35	0	40	N/A -- Case 2	110.0	1	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.

Thermal Discharge Limit Calc-Universal Stainless