

Application Type Renewal
Facility Type Industrial
Major / Minor Minor

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

Application No. PA0002534
APS ID 983478
Authorization ID 1256331

Applicant and Facility Information

Applicant Name	<u>Morgan Advanced Materials & Technology, Inc.</u>	Facility Name	<u>Morgan AM&T</u>
Applicant Address	<u>441 Hall Avenue</u> <u>Saint Marys, PA 15857</u>	Facility Address	<u>441 Hall Avenue</u> <u>Saint Marys, PA 15857</u>
Applicant Contact	<u>Andrew Kunes</u>	Facility Contact	<u>Andrew Kunes</u>
Applicant Phone	<u>(814) 781-9350</u>	Facility Phone	<u>(814) 781-9350</u>
Client ID	<u>42191</u>	Site ID	<u>242507</u>
SIC Code	<u>3624</u>	Municipality	<u>Saint Marys City</u>
SIC Description	<u>Manufacturing - Carbon And Graphite Products</u>	County	<u>Elk County</u>
Date Application Received	<u>December 24, 2018</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>December 27, 2018</u>	If No, Reason	<u>TMDL</u>
Purpose of Application	<u>Renewal of an existing NPDES Permit for a discharge of IW-related stormwater.</u>		

Summary of Review

Act 14 - Proof of Notification was submitted and received.

This facility is not subject to any ELGs.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to continue to meet the limits of this permit, which will protect the uses of the receiving stream.

Part C REQUIREMENTS:

- I. Stormwater Outfalls and Authorized Non-Stormwater Discharges
- II. Best Management Practices (BMPs)
- III. Routine Inspections
- IV. Preparedness, Prevention and Contingency (PPC) Plan
- V. Stormwater Monitoring Requirements
- VI. Other Requirements

There are 2 open violations in efacts associated with the subject Client ID (42191) as of 10/17/2019 (see attached).

Approve	Deny	Signatures	Date
X		Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	
X		Justin C. Dickey, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>002</u>	Design Flow (MGD)	<u>0.00</u>
Latitude	<u>41° 25' 56.00"</u>	Longitude	<u>-78° 33' 7.00"</u>
Quad Name	<u>-</u>	Quad Code	<u>-</u>

Wastewater Description: Stormwater

Receiving Waters	<u>Unnamed Tributary to the Elk Creek (CWF)</u>	Stream Code	<u>50459</u>
NHD Com ID	<u>134396194</u>	RMI	<u>0.946</u>
Drainage Area	<u>5.12</u>	Yield (cfs/mi ²)	<u>0.1</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.512</u>	Q ₇₋₁₀ Basis	<u>USGS #03028000</u>
Elevation (ft)	<u>777</u>	Slope (ft/ft)	<u>0.0199</u>
Watershed No.	<u>17-A</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Cause Unknown, Metals</u>		
Source(s) of Impairment	<u>Acid Mine Drainage, Source Unknown</u>		
TMDL Status	<u>Final, 06/20/2006</u>	Name	<u>Elk Creek TMDL (Elk County) 50459</u>

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

Nearest Downstream Public Water Supply Intake	<u>Pennsylvania American Water Company - Clarion</u>		
PWS Waters	<u>Clarion River</u>	Flow at Intake (cfs)	<u>90.7</u>
PWS RMI	<u>33.3</u>	Distance from Outfall (mi)	<u>71.7</u>

* Based on the impairment of the receiving stream, monitoring will be included with this renewal for Aluminum, Iron, and Manganese.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of Industrial Waste-related stormwater from an existing discharge in Saint Marys City, Elk County.

Outfall 001 has been eliminated from this site. A new NCCW closed loop cooling tower system was installed in 2017 and is designed to have zero discharge. A new overflow has been installed for emergency backup to the Saint Marys City sewer. Based on this information, Outfall 001 was removed from this renewal. Since Outfall 001 has been removed, this facility now only consists of Industrial Waste-related stormwater. This facility does not qualify for the PAG-03 NPDES General Permit for the following reasons:

- Stormwater discharges that, individually or in combination with other similar discharges, are or have the potential to be a contributor of pollution, as defined in the Pennsylvania Clean Streams Law, which are more appropriately controlled under an individual permit. (25 Pa. Code § 92a.54(e)(1))
- Stormwater discharges to impaired waters (with or without an approved Total Maximum Daily Load (TMDL)) where the discharges contain or are expected to contain parameters at concentrations that have the potential to cause or contribute to the impairment, and stormwater discharges that are subject to a wasteload allocation (WLA) in a TMDL.
- Stormwater discharges from a facility covered by an individual permit when coverage under the General Permit would result in less stringent effluent limitations or terms and conditions.

This facility does not have wasteload allocations or permit requirements for any of the parameters of concern in the Elk Creek TMDL.

Facility Area: See the topographical map (Attachment 1) and the aerial map (Attachment 2)

1. Streamflow - Elk Creek @ Outfall 002:

Yieldrate: 0.1 cfsm (Default value)
Drainage Area: 5.12 sq. mi. (USGS StreamStats)
% of stream allocated: 100% Basis: No nearby discharges
Q₇₋₁₀: 0.512 cfs

2. Wasteflow - Outfall 002:

Maximum discharge: 0.036 MGD = 0.055 cfs (runoff flow from renewal application)
Runoff flow period: 24 hours Basis: Runoff flow period from renewal application

3. Reasonable Potential Analysis - Outfall 002:

A Reasonable Potential Analysis was performed in accordance with State practices for Outfall 002 by first using the Toxics Screening Analysis Spreadsheet (see Attachment 3) to determine which parameters should be modeled using the PentoxSD program (see Attachment 4). The following parameters were modeled for Outfall 002:

Total Aluminum, Total Cadmium, Total Copper, Total Iron, Total Lead, Total Silver, and Total Zinc

Median stream pH to be used: 7.0 Standard Units (S.U.)
Stream hardness to be used: 100 mg/l
Basis: Default values

Median discharge pH to be used: 7.0 Standard Units (S.U.)
Discharge hardness to be used: 100 mg/l
Basis: Default values

Result: Based on the SOP, since none of the stormwater concentrations exceed 100 times the most stringent Chapter 93 criterion, no effluent limits will be applied at this time.

However, monitoring will be retained from the previous renewal for Total Aluminum, Total Copper, Total Iron, and Total Zinc. In addition, based on the Toxics Screening Analysis Spreadsheet (see Attachment 3), monitoring will be added for Total Cadmium, Total Lead, and Total Silver. Monitoring

was also added for Total Manganese due to the Elk Creek being impaired for Acid Mine Drainage. Monitoring for Oil and Grease was added based on the stormwater requirements for Appendix J facilities from the PAG-03 General Permit. Monitoring for pH and Total Suspended Solids will be retained from the previous renewal as well. The monitoring frequencies for all parameters were changed from 1/year to 1/6 months to match the frequencies from Appendix J of the PAG-03 General Permit.

4. Antibracksliding:

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-bracksliding is not applicable.

5. Attachment List:

- Attachment 1 - Topographical Map of the Facility Area
- Attachment 2 - Aerial Map of the STP
- Attachment 3 - Toxics Screening Analysis Spreadsheet - Outfall 002
- Attachment 4 - Pentox Modeling Printouts - Outfall 002
- Attachment 5 - Toxics Screening Analysis Spreadsheet - Outfall 003
- Attachment 6 - Pentox Modeling Printouts - Outfall 003

If viewing this electronically, please refer to the following PDF to view the above Attachments:



Adobe Acrobat
Document

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	Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Cadmium	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Manganese	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Silver	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab

Samples taken at the following location: Outfall 002, prior to mixing with any other wastewaters.

Monitoring for TSS and Oil and Grease is based on the stormwater requirements for Appendix J facilities from the PAG-03 General Permit. Monitoring for pH, Total Aluminum, Total Cadmium, Total Copper, Total Iron, Total Lead, Total Manganese, Total Silver, and Total Zinc is based on Chapter 92a.61.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	003	Design Flow (MGD)	0.00
Latitude	41° 25' 56.00"	Longitude	-78° 33' 7.00"
Quad Name	-	Quad Code	-
Wastewater Description: Stormwater			
Receiving Waters	Unnamed Tributary to the Elk Creek (CWF)	Stream Code	50459
NHD Com ID	134396194	RMI	0.946
Drainage Area	5.12	Yield (cfs/mi ²)	0.1
Q ₇₋₁₀ Flow (cfs)	0.512	Q ₇₋₁₀ Basis	USGS #03028000
Elevation (ft)	777	Slope (ft/ft)	0.0199
Watershed No.	17-A	Chapter 93 Class.	CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired*		
Cause(s) of Impairment	Cause Unknown, Metals		
Source(s) of Impairment	Acid Mine Drainage, Source Unknown		
TMDL Status	Final, 06/20/2006	Name	Elk Creek TMDL (Elk County) 50459
Background/Ambient Data		Data Source	
pH (SU)	-		-
Temperature (°F)	-		-
Hardness (mg/L)	-		-
Other:	-		-
Nearest Downstream Public Water Supply Intake	Pennsylvania American Water Company - Clarion		
PWS Waters	Clarion River	Flow at Intake (cfs)	90.7
PWS RMI	33.3	Distance from Outfall (mi)	71.7

* Based on the impairment of the receiving stream, monitoring will be included with this renewal for Aluminum, Iron, and Manganese.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of Industrial Waste-related stormwater from an existing discharge in Saint Marys City, Elk County.

Outfall 001 has been eliminated from this site. A new NCCW closed loop cooling tower system was installed in 2017 and is designed to have zero discharge. A new overflow has been installed for emergency backup to the Saint Marys City sewer.

Based on this information, Outfall 001 was removed from this renewal. Since Outfall 001 has been removed, this facility now only consists of Industrial Waste-related stormwater. This facility does not qualify for the PAG-03 NPDES General Permit for the following reasons:

- Stormwater discharges that, individually or in combination with other similar discharges, are or have the potential to be a contributor of pollution, as defined in the Pennsylvania Clean Streams Law, which are more appropriately controlled under an individual permit. (25 Pa. Code § 92a.54(e)(1))
- Stormwater discharges to impaired waters (with or without an approved Total Maximum Daily Load (TMDL)) where the discharges contain or are expected to contain parameters at concentrations that have the potential to cause or contribute to the impairment, and stormwater discharges that are subject to a wasteload allocation (WLA) in a TMDL.
- Stormwater discharges from a facility covered by an individual permit when coverage under the General Permit would result in less stringent effluent limitations or terms and conditions.

This facility does not have wasteload allocations or permit requirements for any of the parameters of concern in the Elk Creek TMDL.

Facility Area: See the topographical map (Attachment 1) and the aerial map (Attachment 2)

1. Streamflow - Elk Creek @ Outfall 003:

Yieldrate: 0.1 cfsm (Default value)
Drainage Area: 5.12 sq. mi. (USGS StreamStats)
% of stream allocated: 100% Basis: No nearby discharges
Q₇₋₁₀: 0.512 cfs

2. Wasteflow - Outfall 003:

Maximum discharge: 0.072 MGD = 0.111 cfs (runoff flow from renewal application)
Runoff flow period: 24 hours Basis: Runoff flow period from renewal application

3. Reasonable Potential Analysis - Outfall 003:

A Reasonable Potential Analysis was performed in accordance with State practices for Outfall 003 by first using the Toxics Screening Analysis Spreadsheet (see Attachment 5) to determine which parameters should be modeled using the PentoxSD program (see Attachment 6). The following parameters were modeled for Outfall 003:

Total Copper, Total Phenolics, and Total Zinc

Median stream pH to be used: 7.0 Standard Units (S.U.)
Stream hardness to be used: 100 mg/l
Basis: Default values

Median discharge pH to be used: 7.0 Standard Units (S.U.)
Discharge hardness to be used: 100 mg/l
Basis: Default values

Result: Based on the SOP, since none of the stormwater concentrations exceed 100 times the most stringent Chapter 93 criterion, no effluent limits will be applied at this time.

However, monitoring will be retained from the previous renewal for Total Aluminum, Total Copper, Total Iron, and Total Zinc. In addition, based on the monitoring set for Outfall 002, monitoring will be added for Total Cadmium, Total Lead, and Total Silver for Outfall 003. Monitoring was also added for Total Manganese due to the Elk Creek being impaired for Acid Mine Drainage. Monitoring for Oil and Grease was added based on the stormwater requirements for Appendix J facilities from the

PAG-03 General Permit. Monitoring for pH and Total Suspended Solids will be retained from the previous renewal as well. The monitoring frequencies for all parameters were changed from 1/year to 1/6 months to match the frequencies from Appendix J of the PAG-03 General Permit.

4. Antibacksliding:

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-backsliding is not applicable.

5. Attachment List:

- Attachment 1 - Topographical Map of the Facility Area
- Attachment 2 - Aerial Map of the STP
- Attachment 3 - Toxics Screening Analysis Spreadsheet - Outfall 002
- Attachment 4 - Pentox Modeling Printouts - Outfall 002
- Attachment 5 - Toxics Screening Analysis Spreadsheet - Outfall 003
- Attachment 6 - Pentox Modeling Printouts - Outfall 003

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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 003, 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	Annual Average	Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Cadmium	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Copper	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Manganese	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Silver	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	Report	XXX	XXX	1/6 months	Grab

Samples taken at the following location: Outfall 003, prior to mixing with any other wastewaters.

Monitoring for TSS and Oil and Grease is based on the stormwater requirements for Appendix J facilities from the PAG-03 General Permit. Monitoring for pH, Total Aluminum, Total Cadmium, Total Copper, Total Iron, Total Lead, Total Manganese, Total Silver, and Total Zinc is based on Chapter 92a.61.

Compliance History

DMR Data for Outfall 002 (from August 1, 2018 to July 31, 2019)

Parameter	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18
pH (S.U.) Average Monthly								7.85				
TSS (mg/L) Average Monthly								11				
Total Aluminum (mg/L) Average Monthly								0.151				
Total Copper (mg/L) Average Monthly								0.0182				
Total Iron (mg/L) Average Monthly								0.261				
Total Zinc (mg/L) Average Monthly								0.118				

DMR Data for Outfall 003 (from August 1, 2018 to July 31, 2019)

Parameter	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18
pH (S.U.) Average Monthly								7.72				
TSS (mg/L) Average Monthly								3				
Total Aluminum (mg/L) Average Monthly								0.0403				
Total Copper (mg/L) Average Monthly								0.0703				
Total Iron (mg/L) Average Monthly								0.183				
Total Zinc (mg/L) Average Monthly								3.46				