pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0003565**
Facility Type	**Industrial**	APS ID	**1016501**
Major / Minor	**Minor**	Authorization ID	**1314569**

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

Applicant and Facility Information

Applicant Name	**Morgan Advanced Materials & Technology Inc.**	Facility Name	**Coudersport Facility**
Applicant Address	1118 East Second Street	Facility Address	1118 East Second Street
	Coudersport, PA 16915-8307		Coudersport, PA 16915-8307
Applicant Contact	Gary Doyle	Facility Contact	Tony Cochran
Applicant Phone	814-274-6102	Facility Phone	814-274-6117
Client ID	42191	Site ID	241639
SIC Code	3624	Municipality	Eulalia Township
SIC Description	Manufacturing - Carbon and Graphite Products	County	Potter
Date Application Received	May 12, 2020	EPA Waived?	Yes
Date Application Accepted	May 29, 2020	If No, Reason	N/A
Purpose of Application	Renewal of NPDES Permit		

Summary of Review

INTRODUCTION

Gary Doyle, Site Manager, has proposed the renewal of the existing National Pollution Discharge Elimination System (NPDES) permit authorizing the discharge of stormwater from the Morgan Advanced Materials and Technology, Inc. (MAMT) - Coudersport Facility in Coudersport, PA.

APPLICATION

Gary Doyle, the client contact for this application, submitted the National Pollutant Discharge Elimination System (NPDES) Application for Individual Permit to Discharge Industrial Stormwater (DEP #3800-PM-WSFR0403b). This application was received by the Department on May 12, 2020 and was considered administratively complete on May 29, 2020. His additional contact information is (email) gary.doyle@morganplc.com. The site contact is Tony Cochran, Environmental Coordinator. His additional contact information is (email) tony.cochran@morganplc.com.

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.

The case file, permit application package and the draft permit will be available for public review at the Department's Northcentral Regional Office. The address is 208 West Third Street, Suite 101, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

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Approve	Deny	Signatures		Date
X		Jeffrey J. Gocek, EIT	Project Manager	05/28/2021
X		Nicholas W. Hartranft, PE	Environmental Engineer Manager	05/28/2021

COMPLIANCE HISTORY

The WMS Query Open Violations for Client by Permit Number revealed no unresolved violations for MAMT.

The most recent Department inspection, a compliance evaluation inspection (CEI), was conducted January 07, 2020. No violations were noted during the inspection. On-site stormwater appeared clear and excellent housekeeping was observed.

Discharge Monitoring Report (DMR) data from 2019 through 2020 is presented below in mg/L for all with the exception of pH (Standard Units).

Date	Outfall	CBOD5	COD	Fe	O&G	pH	TKN	TP	TSS
06/20/2019	003	< 24	6.0	< 0.075	< 5.0	8.02	< 0.80	< 0.30	8.0
	004	< 24	15	< 0.075	< 5.0	6.43	< 0.80	< 0.30	< 4.0
	005	< 24	26	0.117	7.0	6.52	1.29	0.57	< 4.0
	006	< 60	66	0.117	< 5.0	8.13	0.87	< 0.30	170
11/19/2019	003	< 12	16.9	0.122	8.0	8.34	< 0.80	< 0.15	8.0
	004	< 12	13.6	0.074	9.0	6.65	< 0.80	< 0.15	< 2.0
	005	< 12	< 0.5	0.104	8.0	6.95	< 0.80	< 0.15	< 2.0
	006	< 30	< 5.0	0.044	9.0	7.78	< 0.80	< 0.15	25
04/28/2020	003	< 40	12	0.787	< 5.0	8.46	< 0.80	< 0.15	36
	004	< 24	6.0	0.318	< 5.0	6.40	< 0.80	< 0.15	19
	005	< 24	7.0	0.168	< 5.0	6.81	< 0.80	0.17	13
	006	< 40	9.0	1.420	< 5.0	8.20	< 0.80	< 0.15	58
09/22/2020	003	9.0	24	0.894	< 5.0	7.75	1.44	0.15	29
	004	4.0	5.0	0.443	5.0	6.94	0.97	< 0.15	7.0
	005	10	11	0.508	< 5.0	6.92	1.28	1.20	4.0
	006	3.0	8.0	0.785	< 5.0	7.67	1.16	< 0.15	34

FACILITY DESCRIPTION

According to https://www.morganadvancedmaterials.com/, the Coudersport facility manufactures Seals and Bearings. The Seals and Bearings business of MAMT makes high-performance self-lubricating bearing and seal components, predominantly used in pumps, industrial and domestic and other sealing applications. Advanced carbon/graphite, silicon carbide, alumina and zirconia materials are used to engineer lightweight, low-friction bearings and seals. These components often help to extend the operating life of customers' equipment and promote energy efficiency. The primary markets are the oil and gas, automotive, industrial, water pump, aerospace and home appliance sectors.

The Coudersport facility performs the following:

1. Manufactures carbon mix for all Morgan facilities,
2. Pressing – carbon and silicon carbide seals and bearing and silicon carbide armor,
3. Baking – both batch and continuous bakes,
4. Graphitizing and heat treatment,
5. Silicon infiltration,
6. Impregnation of resins,
7. High temperature self-sintering of silicon carbide materials, and
8. Machining of silicon carbide materials both before and after high temperature sintering.

Wastewater at the plant consists of non-contact cooling water, carbon contact water and silicon contact water. These wastewaters are routed to equalization tanks where solids are settled out. The solids consist of grindings from the manufacture of carbon and silicon products. The reclaimed water is then reused in plant operations.

According to the application, the Standard Industrial Classification (SIC) code for this facility is 3624 (Carbon and Graphite Products). According to http://www.osha.gov, this code is defined as "Establishments primarily engaged in manufacturing carbon, graphite, and metal-graphite brushes and brush stock; carbon or graphite electrodes for thermal and electrolytic uses; carbon and graphite fibers; and other carbon, graphite and metal graphite products". The associated North American Industry Classification System (NAICS) number is 335991.

See Attachment 01 for a map of the MAMT location.

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STORMWATER OUTFALLS

The site contains four stormwater outfalls: 003, 004, 005 and 006. The following table provides outfall characteristics:

Outfall	Latitude	Longitude	Receiving Stream	RMI	Drainage Area (ft^2)
003	41°45'50.55"	-77°58'25.87"	Mill Creek	2.68	72,000
004	41°45'52.32	-77°58'28.18"	Mill Creek	2.70	100,000
005	41°45'56.30"	-77°58'31.61"	Mill Creek	2.75	85,000
006	41°46'00.56"	-77°58'30.06"	Mill Creek	2.78	72,000

The 003-drainage area includes the east parking lot, covered roll-off containers (with residual waste and scrap metal) and a detached storage building of drums of production chemicals (acetone, methanol and isopropanol), hazardous waste (acetone) and waste oil. The 004-drainage area includes roof runoff, a compactor for general plant refuse and a covered roll-off container for residual waste (carbon, coal tar pitch and silicon carbide). The 005-drainage area includes roof runoff and dust collectors (dust contains carbon and coal tar pitch). The 006-drainage area includes the west parking lot and a closed/capped residual waste landfill (carbon and coal tar pitch).

The on-site residual waste landfill, which lies within the drainage area of Outfall 006, is properly capped with certified closure and post-closure operations under Department oversight.

See Attachment 02 for a map of the outfalls at the site.

BEST MANAGEMENT PRACTICES

The Best Management Practices (BMPs) currently utilized at this facility include:

1. Outside areas are kept clean using good housekeeping procedures,
2. Only certain items are stored outside, in accordance with PPC Plan procedures,
3. Chemicals are kept in sealed containers under roof,
4. Waste storage roll-off containers are equipped with covers to prevent exposure to wind and rain,
5. Baghouse dust collected by the dust collectors is stored in sealed water-resistant, sift-proof supersacks,
6. Supersacks are hauled offsite for disposal,
7. Trash is collected and stored in an enclosed compactor,
8. Employees receive periodic training in concerns and control procedures related to stormwater pollution prevention, and
9. Monthly environmental, health and safety (EHS) inspections are conducted and include the above items.

RECEIVING STREAM

Stream Characteristics

The receiving stream for site stormwater is Mill Creek. Mill Creek is tributary to the Allegheny River. The stream is identified by Department stream code 58418. According to 25 PA § 93.9P, this stream is protected for High Quality - Cold Water Fishes (HQ-CWF) and Migratory Fishes (MF). HQ-CWF and MF are the stream's Designated Uses, which is defined in 25 PA § 93.1 as "those uses specified in §§ 93.9A – 93.9Z for each waterbody whether or not that use is being attained". Designated uses are regulations promulgated by the Environmental Quality Board (EQB) through the rulemaking process. Mill Creek currently has no Existing Use, which is defined in 25 PA § 93.1 as "those uses actually attained in the waterbody on or after November 28, 1975 whether or not they are included in the water quality standards". The stream is located in (Chapter 93) drainage list P and State Water Plan watershed 16C (Oswago and Potato Creeks).

According to data from the PA Fish and Boat Commission (PAFB), this stream is protected as both a Class A Wild Trout stream and a Trout Natural Reproduction stream.

Impairment

Stream assessment data indicates that Mill Creek is attaining its designated uses with respect to Aquatic Life. The stream segment is not impaired and no TMDL has been completed for this segment.

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ANTI-DEGRADATION BACKGROUND

40 CFR §§ 131.12 and 131.32 require Pennsylvania (PA) to adopt an anti-degradation policy and include this policy as a required element of the surface water quality standards program. According to the Department's "Water Quality Anti-Degradation Implementation Guidance" (#391-0300-002), it is the Department's policy to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) waters.

The basic concept of anti-degradation is to promote the maintenance and protection of existing water quality for High Quality (HQ) and Exceptional Value (EV) waters, and protection of existing uses for all surface waters because it recognizes that existing water quality and uses have inherent value worthy of protection and preservation. As a required element of PA's water quality standards, the Anti-Degradation (Antideg) program introduces levels of protection for deserving waterbodies above the basic standards. The exception occurs, in the case of HQ waters, when the Department finds (after satisfaction of intergovernmental coordination and public participation requirements) that allowing a lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located.

The existing uses are protected when the Department makes a final decision on any permit or approval for an activity that may affect a protected use. The existing uses are also protected based on the Department's evaluation of the best available information that indicates the protected use of a waterbody.

For new, additional or increased point source discharges to an HQ or EV water, the person proposing the discharge is required to utilize a non-discharge alternative that is both cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a non-discharge alternative is not cost effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention and wastewater reuse technologies to assure that any discharge is non-degrading. This process, known as the Anti-Degradation Best Available Combination of Technologies (ABACT) analysis, establishes a minimum level of performance for dischargers in HQ or EV waters based on the more stringent of water quality-based effluent limits (WQBELs) or ABACT.

ANTI-DEGRADATION ANALYSIS

The below data was provided by the permittee and the Department's Central Office staff.

1. The industrial activity (and the associated stormwater discharges) at MAMT began in the late 1950s (with MAMT taking ownership in 1995) and
2. The nearby section of Mill Creek was reclassified with a designated use of High Quality - Cold Water Fishes (HQ-CWF) in 1998,

Because of this information, any surface water discharge from this facility is considered "existing" and not subject to the Department's Anti-degradation Requirements and Regulations (25 PA § 93.4a). The industrial stormwater discharge at the time of the HQ-CWF designation is considered part of the existing quality of the waterbody.

ADDITIONAL POLLUTANTS

The following process information was provided with the recent application to describe pollutants believed to be present at the facility.

Coal Tar Pitch

The basic raw materials at MAMT are carbon-type powders (graphite, coke and carbon black) and coal tar pitch binder. The coal tar pitch is present in mixing/blending and pressing operations. This binder is destroyed in the heat treatment process (converted to carbon coke) and is therefore not present in subsequent machining processes. Small amounts of baghouse dust may contain coal tar pitch, which is a mixture of polycyclic aromatic hydrocarbons created during the distillation of coal tar at high temperatures.

Since the baghouse dust is stored in sealed water-resistant, sift-proof supersacks, the dust is not expected to contact precipitation or site runoff.

Metals

Small percentages of zinc compounds are added to some mixtures. Small traces of zinc may be present in the baghouse dust.

Some carbon parts are impregnated with antimony. The molten metal impregnation process is performed in pressure vessels in a closed process. Residues containing antimony are collected in steel drums and stored under roof until shipped for recycling.

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A stormwater sample from each outfall was tested for Zinc and Antimony , with the results presented below. Values are in mg/L.

Outfall	Zinc	Antimony
003	0.060	< 0.013
004	0.092	< 0.013
005	0.076	< 0.013
006	0.040	< 0.013

MAMT reported that iron is not used in the production processes. The only source of iron is the steel in the building construction and equipment. MAMT requested that iron is removed from the monitoring requirements in this permit.

Monitoring

Since Total Iron is being reported in detectable levels during routine monitoring, the Department will continue the monitoring requirement. Since Total Zinc was reported in detectable levels, a monitoring requirement for Total Zinc will be included in the draft permit. Because Antimony was not detected, no monitoring requirement will be established at this time.

EXISTING EFFLUENT MONITORING AND LIMITATIONS

The following limitations and monitoring requirements have applied to Outfalls 003, 004, 005 and 006 and were established at the last issuance on December 14, 2015.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass (lb/day)		Concentration (mg/L, unless noted)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Maximum Daily	Minimum	Average Monthly	Maximum Daily	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/6 Months	Grab
CBOD5	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
COD	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
Oil & Grease	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
TSS	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
Total P	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab
Total Fe	XXX	XXX	XXX	Report	XXX	XXX	1/6 Months	Grab

BASIS OF EFFLUENT 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)

BASIS OF EFFLUENT MONITORING

Existing Permit

The monitoring for this permit is based on existing monitoring in the current permit, which considers the activity outside of the buildings exposed to precipitation and/or runoff.

Stormwater Benchmarks

The following benchmarks have been established by the Department for stormwater discharges.

Pollutant	Units	Benchmark
TSS	mg/L	100
COD	mg/L	120
CBOD5	mg/L	30
Oil & Grease	mg/L	30

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The benchmark values are concentrations of a pollutant in the stormwater that serve as a threshold for the determination of whether exiting site BMPs are effective in controlling stormwater pollution. These are not effluent limitations. In the event stormwater discharge concentrations for a parameter exceeds the benchmark values at the same outfall for two or more consecutive monitoring periods, the permittee shall develop a corrective action plan to reduce the concentration of that parameter in the stormwater discharges.

ADDITIONAL INFORMATION

Standard Operating Procedures

The review of this application was in accordance with the Department's Standard Operating Procedure (SOP) for Clean Water Program Establishing Effluent Limitations for Individual Industrial Permits (SOP #BPNPSM-PMT-032) and the SOP for Clean Water Program New and Reissuance Industrial Waste and Industrial Stormwater Individual NPDES Permit Applications (SOP #BPNPSM-PMT-001).

Special Conditions

Stormwater Outfalls
Best Management Practices
Routine Inspections
Preparedness, Prevention and Contingency Plan
Stormwater Monitoring Requirements
Approval Contingencies
Proper Waste Disposal

Supplemental DMRs

Annual Stormwater Report Form
Non-Compliance Report Form
Lab Accreditation Form

PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfalls 003, 004, 005 and 006 – Effective Period: Permit Effective Date through Permit Expiration Date

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass (lb/day)		Concentration (mg/L, unless noted)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Maximum Daily	Minimum	Average Monthly	Maximum Daily	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/6 Months	Grab
CBOD5	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
Oil & Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
TKN	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
Total P	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
Total Fe	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab
Total Zn	XXX	XXX	XXX	XXX	Report	XXX	1/6 Months	Grab

END of Fact Sheet.

ATTACHMENT 01

ATTACHMENT 02