

Application Type New
Facility Type Storm Water
Major / Minor Minor

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

Application No. PA0276421
APS ID 1043391
Authorization ID 1361912

Applicant and Facility Information

Applicant Name	<u>Messer LLC</u>	Facility Name	<u>Messer Cylinder Filling Plant</u>
Applicant Address	<u>200 Somerset Corporate Drive Suite 7000 Bridgewater, NJ 08807</u>	Facility Address	<u>1108 Corporate Center Drive East Tobyhanna, PA 18466</u>
Applicant Contact	<u>Philipp Sieber</u>	Facility Contact	<u>Brian Mattingly</u>
Applicant Phone	<u>(848) 702-8769</u>	Facility Phone	<u>(908) 329-9439</u>
Client ID	<u>202732</u>	Site ID	<u>839138</u>
SIC Code	<u>2813</u>	Municipality	<u>Coolbaugh Township</u>
SIC Description	<u>Manufacturing - Industrial Gases</u>	County	<u>Monroe</u>
Date Application Received	<u>July 15, 2021</u>	EPA Waived?	<u>No</u>
Date Application Accepted	<u>August 25, 2021</u>	If No, Reason	<u>Individual IW Stormwater NPDES permit</u>
Purpose of Application	<u>Application of Individual IW Stormwater NPDES Permit.</u>		

Summary of Review

This is a new Individual IW Stormwater NPDES Permit for the (11.3-acre property parcel) Messer Cylinder Filling Plant (Plant with associated driveways, parking areas, office buildings and appurtenances for blending gases, no manufacturing of specialty gases), located within an existing Commercial Park (Pocono Mountains Corporate Center East Development), that will discharge to HQ watersheds.

- **PAD450098 separately authorized construction and post-construction stormwater controls.**
- **Revised Application DEP On-Base Reference Number 29964.** (Old incomplete application under Reference Number 26048)
- The facility was expected to start operating in 9/2/2021. Estimated 493,875 square foot area (46% impervious) overall. No stormwater sampling data submitted. Site sewage going to Treatment Plant (NPDES Permit No. PA0060895 per application).
- The (currently expired) IW Stormwater NPDES General Permit PAG-03 Appendix F (Chemical and Allied Products) minimum requirements are applicable to this facility's identified SIC Code in terms of non-HQ/non-EV streams, as a base level of statewide environmental protection. HQ watersheds require a higher level of protection.

Part C Special Conditions:

- **Part C.I (Stormwater Outfalls and Authorized Non-stormwater Discharge):** Standard IW Stormwater Permit Conditions. See Part C.II.E.1 regarding proposed discharge of collected scrubber secondary containment area precipitation.
- **Part C.II (Best Management Practices (BMPs)):** Standard IW Stormwater conditions **with site-specific E.1 and E.2.**
 - **Part C.II.E.1:** PPC Plan section 2.5 states: Scrubber Containment Area water will be pumped to the scrubber wastewater storage tank. Then it says: "If stormwater is to be pumped to the surface, it will be inspected and analyzed as needed prior to discharge".

Approve	Deny	Signatures	Date
X		James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	October 1, 2021
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	10-14-21

Summary of Review

- No wastewater discharges are authorized by this permit. Once mixed with wastewater, stormwater becomes wastewater.
- Discharges of uncontaminated scrubber containment precipitation/washwater (to stormwater controls) will not be allowed without written Department approval of an SOP showing how the collected liquid is verified to be uncontaminated prior to discharge. The potential contaminants from a scrubber unit's leaks, spills or other releases might not be easily detected and/or treated (such as by an oil/water separator unit for an oil tank containment area).
- **Part C.II.E.2 (PCSM):** The PAD450098 post-construction stormwater management requirements are incorporated by reference.
- **Part C.III (Routine Inspections):** Standard IW Stormwater conditions.
- **Part C.IV (PPC Plan):** Standard IW Stormwater conditions
- **Part C.V (Stormwater Monitoring Requirements):** Standard IW Stormwater conditions
- **Part C.VI.A and B (Other Requirements):** Standard IW stormwater conditions (Property rights; Residuals management)

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.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001, 002, 003	Design Flow (MGD)	0
	41° 9' 14.52" (001)		-75° 22' 44.62" (001)
	41° 9' 14.52" (002)		-75° 22' 44.62" (002)
Latitude	41° 9' 13.45" (003)	Longitude	-75° 22' 48.39" (003)
Quad Name	Buck Hill Fall	Quad Code	0943 (4.22.1)
Wastewater Description:	Stormwater		
Receiving Waters	Clear Run (HQ-CWF, MF)	Stream Code	4445
NHD Com ID	26280115	RMI	-
Drainage Area	See below	Yield (cfs/mi ²)	See below
Q ₇₋₁₀ Flow (cfs)	-	Q ₇₋₁₀ Basis	-
Elevation (ft)	~1949 Feet (facility centroid)	Slope (ft/ft)	-
Watershed No.	2-A	Chapter 93 Class.	HQ-CWF, MF
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	Final	Name	Lehigh River TMDL (AMD metals)
<u>Background/Ambient Data:</u>	None available	Data Source	
pH (SU)	-		
Temperature (°F)	-		
Hardness (mg/L)	-		
Other:	-		
Nearest Downstream Public Water Supply Intake	-		
PWS Waters	-	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	>10 miles

Changes Since Last Permit Issuance: **New IW stormwater discharger within existing business park area.**

Other Comments:

- The plant Outfalls Nos. 001, 002, and 003 (Drainage areas Nos. A1, A2, A3, B1, B2, and B3), subject to TBELs, are located at some distance from Clear Run with runoff going to an existing regional detention basin at the northwest corner of the Corporate Drive East and from there to the Clear Run watershed. The exact route to the stream is unknown. The application indicates all runoff will reach Clear Run at the Lynchwood Lake confluence. Clear Run directs flow through additional ponds, then to Upper Tunkhannock Creek and Lehigh River.
 - Outfall No. 001: 9,185.3 SF, 38% impervious
 - Sources: Receives stormwater runoff from Rain Garden A2 and some paved areas along the northwest entrance area (Corporate Center Drive East). **No industrial activity or material handling areas identified.**
 - Stormwater BMPs: Stormwater BMPs include rain gardens, street sweeping of paved area (1/month minimum) and use of native vegetation in the landscaped areas.
 - Outfall No. 002: 19,358 SF, 47% impervious

- Sources: Receives stormwater runoff from Rain Garden A1 and some paved areas along northwest entrance area (Corporate Center Drive East). **No industrial activity or material handling areas identified.**
- Stormwater BMPs: Stormwater BMPs include rain gardens and use of native vegetation in the landscaped areas.
- Outfall No. 003: 37,219.2 SF, 2% impervious
 - Sources: Receives stormwater runoff from Rain Gardens B1 and B2, open landscape area from the B1 & B2 drainage areas. Some paved area along northwestern entrance area (Corporate Center Drive East). **No industrial activity or material handling areas identified.**
 - Stormwater BMPs: Stormwater BMPs include rain gardens and use of native vegetation in the landscaped areas.

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	004	Design Flow (MGD)	0
	41° 8' 8.94" (004)		-75° 21' 54.74" (004)
	41° 8' 8.94" (005)		-75° 21' 54.74" (005)
Latitude	41° 8' 8.94" (006)	Longitude	-75° 21' 54.74" (006)
Quad Name	Buck Hill Falls	Quad Code	0943 (4.22.1)
Wastewater Description: Stormwater			
Receiving Waters	Red Run (HQ-CWF, MF)	Stream Code	4446
NHD Com ID	26280503	RMI	-
Drainage Area	See below	Yield (cfs/mi ²)	-
Q ₇₋₁₀ Flow (cfs)	-	Q ₇₋₁₀ Basis	-
Elevation (ft)	~1949 Feet (facility centroid)	Slope (ft/ft)	-
Watershed No.	2-A	Chapter 93 Class.	HQ-CWF, MF
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	Final	Name	Lehigh River TMDL (AMD)
<u>Background/Ambient Data:</u> None available		<u>Data Source</u>	
pH (SU)	-		-
Temperature (°F)	-		-
Hardness (mg/L)	-		-
Other:	-		-
Nearest Downstream Public Water Supply Intake	-		
PWS Waters	-	Flow at Intake (cfs)	-
PWS RMI	-	Distance from Outfall (mi)	>10 miles

Changes Since Last Permit Issuance: **New IW stormwater discharger within existing business park area.**

Other Comments:

- Discharge is to the Red Run watershed. The plant and its outfalls (subject to TBELs) are located at some distance from Red Run with runoff going to the commercial park stormwater controls. The exact route to the stream is unknown. Assuming Route 611, the flow would be directed to the headwater of Red Run. Red Run flows into Pocono Summit Lake and several other downstream ponds. Red Run which eventually flows to the Upper Tunkhannock Creek and Lehigh River.
 - Outfall No. 004: 39,495.6 SF, 25% impervious
 - Sources: Receives stormwater runoff from Rain Garden C, the paved alternate site access entrance/exit at northeastern side of the facility and from open landscaped areas (Drainage Areas C1, C2, and E2). Discharge is directed to swale. **No industrial activity or material handling areas identified.**
 - Stormwater BMPs: Stormwater BMPs include rain gardens, street sweeping of paved area (1/month minimum) and use of native vegetation in the landscaped areas.
 - Outfall No. 005: 269,448.8 SF, 59% impervious

- Sources: Drainage Areas E1, E2, E3 and E4 drain southeast to wetlands in the River Run watershed. **Receives stormwater runoff from the Main Production Building/Office area, parking areas, paved areas, covered Finished Product Storage, Cylinder Receiving Area, Empty Cylinder storage areas, trucking parking areas, Basin E (Drainage Area E1), and open landscaped areas (Drainage Areas E3 and E4).**
- Stormwater BMPs: They intend to cover all material handling and storage areas. Stormwater BMPs include rain gardens, street sweeping of paved area (1/month minimum) and use of native vegetation in the landscaped areas.
- Outfall No. 006: 119,168.5 SF, 40% impervious
 - Sources: Drainage Areas D1 and D2 drain to the southern point of the property toward an existing 18-inch reinforced pipe (RCP) under Memorial Boulevard (State Route 611) that discharges to the Pocono Mountain Airport stormwater management system and then to the Red Run watershed. **Includes Office building, parking areas, Shipping Ramp, and Basin D (Drainage Area D1).**
 - Stormwater BMPs: A detention basin is installed for rate control and solids reduction. Material handling and storage area will be covered. Stormwater BMPs include street sweeping of paved area (1/month minimum) and use of native vegetation in the landscaped areas.

Compliance History	
Summary of DMRs:	New facility. No DMRs/EDMR available.
Summary of Inspections:	New facility. No inspection reports available.

Other Comments:

Compliance History: No open violations per 9/30/2021 WMS Query (open violations by client number) for this client/applicant.

Permit: PA0276421
Client ID: 202732
Client: All

Open Violations: 0

No data was found using the criteria entered. Please revise your choices and try again.

Development of Effluent Limitations

Outfall No.	001 - 006	Design Flow (MGD)	0
	41° 8' 48.67" (001)		-75° 22' 20.22" (001)
	41° 8' 48.99" (002)		-75° 22' 19.48" (002)
	41° 8' 50.34" (003)		-75° 22' 16.89" (003)
	41° 8' 49.33" (004)		-75° 22' 8.99" (004)
	41° 8' 44.62" (005)		-75° 22' 20.42" (005)
Latitude	41° 8' 44.00" (006)	Longitude	-75° 22' 12.37" (006)
Wastewater Description:	Stormwater		

Permit Limits and/or Monitoring Requirements:

Parameter	Limit (mg/l unless otherwise specified)	SBC	Model/Basis
pH	6.0 – 9.0 SU	IMIN - IMAX	Industrial Category PAG-03 Appendix F monitoring requirement for this SIC Code with Chapter 95.2 limit for Outfalls. Reporting <u>only</u> for Outfalls Nos. 001 -003, 004 (lacking identified industrial activities/material handling areas) in this permit term to gather information.
Chemical Oxygen Demand (COD)	120.0	IMAX	Industrial Category PAG-03 Appendix F monitoring requirement for this SIC Code with statewide BPJ permit limit (based on PAG-03 benchmark). Reporting <u>only</u> for Outfalls Nos. 001 -003, 004 (lacking identified industrial activities/material handling areas) in this permit term to gather information.
TSS	100.0	IMAX	Industrial Category PAG-03 Appendix F monitoring requirement for this SIC Code statewide BPJ permit limit (based on PAG-03 benchmark). Reporting <u>only</u> for Outfalls Nos. 001 -003, 004 (lacking identified industrial activities/material handling areas) in this permit term to gather information.
Oil & Grease	30.0	IMAX	Chapter 95.2 limit due to HQ watershed. Reporting <u>only</u> for Outfalls Nos. 001 -003, 004 (lacking identified industrial activities/material handling areas) in this permit term to gather information.
Nitrate-Nitrite-N	Report	IMAX	Industrial Category PAG-03 Appendix F minimum monitoring requirement for this SIC Code
Total Phosphorus	Report	IMAX	See above
Total Lead	Report	IMAX	See above
Total Zinc	Report	IMAX	See above
Total Iron	Report	IMAX	See above. Also required due to Lehigh River TMDL (AMD metals).
Total Aluminum	Report	IMAX	See above.

Total Manganese	-	-	Not needed. Not a PAG-03 Appendix F indicator constituent. Aluminum and Total Iron will act for indicators for any AMD metal contribution
CBOD5, Total Nitrogen			Not needed. Not PAG-03 Appendix F indicator constituents. In the absence of any application stormwater data, there is no known problem (with wildlife contribution expected in future due to nature of stormwater controls). The need for these constituents will be addressed in the next NPDES permit renewal.

Comments:

- Due to lack of baseline stormwater monitoring data (facility being constructed), no representative stormwater outfalls could be identified. There is no data to determine background conditions prior to facility start-up.
- Due to the facility being newly constructed & without any start-up stormwater sampling, the impact of the constructed facility on the HQ watersheds remains undefined, requiring monitoring for stormwater outfalls containing paved areas in addition to the main industrial activity/material handling areas in Outfalls Nos. 005 and 006 drainage areas. The monitoring requirements will be reevaluated in the future NPDES Permit renewal.
- Outfalls Nos. 001 – 003 and 004 have no identified industrial activities or material handling, but have paved areas. Monitoring is required to establish a baseline for future and in event of any leak, spill or other release to the paved areas. The Department retains broad authority to reopen permit if data shows discharges would degrade the receiving waters of the Commonwealth.
- Outfall Nos. 005 and 006 have identified industrial activities and materials handling areas. TBEL Permit limits apply.

Anti-Degradation: No additional degradation to the waters of the Commonwealth is expected. The Individual IW Stormwater NPDES Permit limits/monitoring, implemented required stormwater BMPs, and IW Stormwater PPC Plan requirements will prevent any additional degradation of the waters of the Commonwealth.

- **Limited “grandfathering”:** The application indicates the project is in a 247-acre development initially permitted in 2001, with some stormwater infrastructure in place. The original development plans were modified to minimize impervious materials and installing stormwater BMPs (described below). The application noted the PAD450098 permitting process included a limited alternatives analysis for stormwater management options. In practical terms, the previous Chapter 102 permitting for construction/commercial uses creates limited grandfathering because any commercial business/construction and/or other industry (within the development) not subject to IW Stormwater NPDES permitting requirements would have resulted in limited stormwater discharges. This Individual IW Stormwater NPDES permit will address any overlapping/additional IW Stormwater Permit requirements. The TBELs (regulatory and PAG-03) represent the limits that a commercial facility would also be expected to meet in terms of protecting the waters of the Commonwealth.
- **PCSM Stormwater BMPs:** The application states: ““Anti-Degradation alternatives for stormwater management during construction and post-construction were reviewed by PADEP prior to approval of PAD450098 and the Post-Construction Stormwater Management (PCSM) Plan”. Construction/Post Construction Stormwater Controls (PCSC) addressed under 11/13/2019 (amended 8/24/2020) DEP Waterways and Wetland Permit No. PAD450098 (addressing runoff quantities and rates), with no expected increase in stormwater discharge rates and an approved PCSM O&M Plan. They indicated the facility was designed in accordance with PA Stormwater BMP Manual, Monroe County Conservation District requirements, the 2014 “Managed Release Concept (MRC)” Act 167 Plan rate requirements, and the Coolbaugh Township Ordinance. Post-Construction Stormwater Management controls are identified below. Drainage patterns will remain essentially unchanged. Native trees will be planted in all locations allowed by the local airport height restrictions. Vegetated swales used where possible. The facility is aiming at “no exposure” of industrial activities/material handling after completion of facility construction. No exposure is not an IW Stormwater NPDES permit option within HQ watersheds, but is a desirable design goal.
- **Alternatives Analysis:**
 - Per application, alternative project locations (non-HQ watersheds) were considered but site was selected due to Messer production and operational needs, zoning and vehicular access, with the site already partly grandfathered in terms of non-IW stormwater considerations as part of the Pocono Mountains Corporate

Center East Development. Businesses must be located within their expected customer service area. Most of the local area is located within HQ watersheds.

- Non-discharge alternatives such as constructed treatment wetlands were considered but determined to be impractical and not cost-effective. Existing site (prior to construction) contained areas of concentrated discharge and soils with limited infiltration potential. The site did not have sufficient area available seasonal/year-round application of stormwater. (Rain gardens and detention basins discharging toward natural infiltration/wetland areas allow for limited infiltration.) Facility operations are not expected to require or use sufficient water to enable recycling/reuse of collected stormwater.
- The Chapter 102 Application for Individual NPDES Permit for Stormwater Discharges Associated with Construction Activities included a limited construction-oriented Antideg/Alternatives Analysis that did not address IW NPDES Stormwater requirements from an operating facility. The PCSMs address non-IW Stormwater considerations. In terms of what it covered:
 - Chapter 102.4(b)(6) indicates: “For purposes of this chapter, nondischarge alternatives and ABACT and their design standards are listed in the Erosion and Sediment Pollution Control Program Manual, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 363-2134-008 (April 2000), as amended and updated”.
 - Chapter 93.4a, b, and c (Antidegradation requirements) and the DEP Clean Water Program Technical Guidance (DEP Policy No. 391-0300-002 “Water Quality Antidegradation Implementation Guidance”) governs Individual IW Stormwater NPDES permitting requirements. This review addressed IW Stormwater requirements.

Communications Log:

7/15/2021: NPDES application received (one hard copy). Applicant did not reference On-Base submittal Reference No. 26048

7/26/2021: Incompleteness letter issued 7/26/2021. See letter for incompleteness issues (including permit coordination and need to better explain antidegradation measures).

7/26/2021: Applicant (consultant) voice-mail to DEP Clean Water Permits Chief asking for clarification on Incompleteness letter items. Permits Chief indicated she would call back.

8/25/2021: Response to Incompleteness Letter received (Onbase Reference No. 29964).