pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285269**
Facility Type	**Storm Water**	APS ID	**1103746**
Major / Minor	**Minor**	Authorization ID	**1467255**

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

Applicant and Facility Information

Applicant Name	**Extrel CMS, LLC**	Facility Name	**Extrel CMS, LLC**
Applicant Address	575 Epsilon Drive Suite 2	Facility Address	575 Epsilon Drive Suite 2
	Pittsburgh, PA 15238-2812		Pittsburgh, PA 15238-2812
Applicant Contact	James Brenner	Facility Contact	(same as applicant)
Applicant Phone	(412) 967-5759	Facility Phone	(same as applicant)
Client ID	381838	Site ID	869164
SIC Code	3826	Municipality	O'Hara Township
SIC Description	Analytical Laboratory Instrument Manufacturing	County	Allegheny
Date Application Received	December 29, 2023	EPA Waived?	Yes
Date Application Accepted	April 10, 2024	If No, Reason	

Purpose of Application: Application for a new individual NDPES permit for the discharge of industrial stormwater.

Summary of Review

The Department received a new NPDES permit application from Extrel CMS, LLC for coverage of their facility located in O'Hara Township, Allegheny County on December 29, 2023. The original submission did not include sample results, evidence of Act 14 notifications or newspaper publication. These missing items were later provided to the Department.

The facility is comprised of assembly rooms where trace gas analyzers are developed, manufactured and serviced. It operates 8 hours a day, 5 days per week. There are approximately 60 employees. The facility occupies Suite 2 of a single building of approximately 330,000 square feet where all operations take place. The site is in an industrial park and shares the building and parking lot with several other businesses.

Approve	Deny	Signatures	Date
X		Jamie Ley Jamie Ley / Environmental Engineering Specialist	May 6, 2024
X		Michael E. Fifth Michael E. Fifth, P.E. / Environmental Engineer Manager	May 6, 2024

Summary of Review

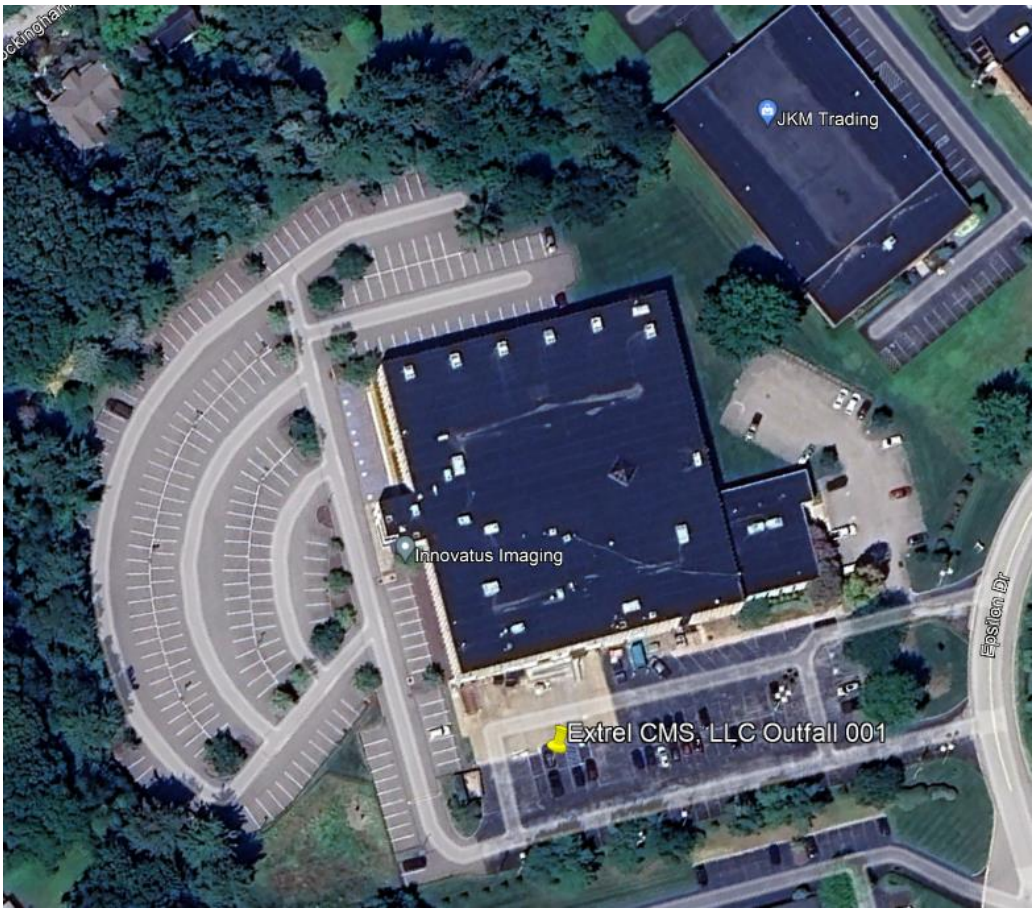

Figure 1- Aerial Image (Google Earth Imagery Dated August 2023)

Figure 2 – Site Area

Waste materials generally consist of used solvents and general office trash. Hazardous wastes at the facility include the following:

Summary of Review

Raw Material	Maximum Daily Inventory (Liters)	Storage Container	Location
Acetone	12	1-Liter Glass Container	Fire Cabinet
Methanol	4	1-Liter Glass Container	Fire Cabinet

The site has one stormwater outfall, Outfall 001. Outfall 001 discharges to O'Hara Township's MS4. The MS4 ultimately discharges to Tributary 42225 of Squaw Run, which is designated in 25 PA Code 93 as a High-Quality Warm Water Fishery (HQ-WWF). Outfall 001 captures stormwater from a portion of the industrial park parking lot and the loading dock area.

A Preparedness, Prevention, and Contingency (PPC) Plan was provided with the application. The PPC plan was written in accordance with the 'Guidelines for the Development and Implementation of Environmental Emergency Response Plans' (400-2200-001). There are no known or reported history of non-stormwater discharges at the facility according to the PPC plan.

No inspections have been performed for this facility. The facility has no violations.

An individual stormwater permit is required given that the receiving stream, Tributary 42225 of Squaw Run, is classified as HQ-WWF as per 25 PA Code § 93.9.

The applicant conducted a non-discharge alternatives analysis because the stormwater discharges to high quality but concluded that since the discharge is stormwater only that there are no technically feasible, cost effective or environmentally sound alternatives to the stormwater discharge. Non-degrading effluent limitations were not developed or imposed because the discharge is stormwater only.

To ensure that the discharge does not degrade the receiving stream, no exposure benchmark values will be used in place of the standard stormwater benchmark values in the permit. The goal for the permittee is to consistently achieve these benchmark values. Doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving water. A Part C condition is included in the Draft Permit requiring a Corrective Action Plan when there is an exceedance of the benchmark values, which are also included in the Part C condition. As described above, if there is an exceedance of any benchmark value, a Corrective Action Plan must be developed and submitted to evaluate site stormwater control and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs.

The sample results provided with the permit application for stormwater discharges from Outfall 001 were generally below the no exposure benchmark values except for COD, which was slightly elevated.

OUTFALL 001					
Pollutant		**Reported Concentration (mg/L)**	**Reporting Limit (mg/L)**	**No. Events Sampled**	**No Exposure Benchmarks (mg/L)**
Oil & Grease	<	4.95	4.95	1	5.0
Nitrate as N	<	1.000	1.000	1	
Nitrite as N	<	0.200	0.200	1	
BOD		3.04	3.00	1	10
COD		38.3	15	1	30
TSS		7.00	4.00	1	30
TKN		0.7430	0.5000	1	
Total Nitrogen		1.943		1	2.0
Phosphorus		0.06	0.02	1	1.0
Iron		0.797	0.200	1	7.0
pH (S.U.)		6.7		1	9.0

Draft permit issuance is recommended.

Public Participation

Summary of Review
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	Design Flow (MGD)	0
Latitude	40º 29' 45.94"	Longitude	-79º 52' 35.59"
Quad Name	Braddock	Quad Code	1507
Wastewater Description:	Stormwater		
Receiving Waters	Tributary 42225 to Squaw Run	Stream Code	42225
NHD Com ID	123972891	RMI	0.2700
Drainage Area	N/A	Yield (cfs/mi^2)	N/A
Q_{7-10} Flow (cfs)	N/A	Q_{7-10} Basis	N/A
Elevation (ft)	942	Slope (ft/ft)	N/A
Watershed No.	18-A	Chapter 93 Class.	HQ-WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, ORGANIC ENRICHMENT, PESTICIDES		
Source(s) of Impairment	GOLF COURSES, GOLF COURSES, URBAN RUNOFF/STORM SEWERS		
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake	Pittsburgh Water & Sewer Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2,390
PWS RMI	8.2	Distance from Outfall (mi)	~1.6

Changes Since Last Permit Issuance: N/A – new permit

Other Comments: Flow at PWS intake basis – US Army Corp. of Engineers

Development of Effluent Limitations

Technology-Based Limitations

Stormwater Technology Limits

Outfall 001 is subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfall discharges stormwater associated with industrial activity. The SIC code for the site is 3826 (Analytical Laboratory Instrument Manufacturing) and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix J. The reporting requirements applicable to stormwater discharges are shown in Table 1 below. Along with the monitoring requirements, sector specific BMPs included in Appendix J of the PAG-03 will also be included in Part C of the Draft Permit.

Table 1: PAG-03 Appendix (J) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
Total Nitrogen	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab
Oil & Grease (O & G)	Monitor and Report	1/6 Months	Grab
pH	Monitor and Report	1/6 Months	Grab
Chemical Oxygen Demand (COD)	Monitor and Report	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharge from Outfall 001 is composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Degradation

Squaw Run was designated as High Quality (HQ) in 1979. According to facility personnel, Extrel CMS LLC began operations at the facility the summer of 1988.

Antidegradation regulations under Chapter 93.4c(a)(l)(i) require dischargers to protect the existing use of receiving waters. Chapter 93.4c(b) requires dischargers to consider non-discharge alternatives, public participation and social/economic justification when proposing new, additional or increased discharges to high quality or exceptional value streams. Existing use protection required under Chapter 93.4c(a)(l)(i) is ensured for discharges to high quality streams imposing the most stringent of technology-based, water quality based and non-degrading effluent limitations. In this case, non-degradation effluent limitations are not applicable because the discharge is stormwater only. To ensure that the discharge does not degrade the stream, the no exposure benchmark values will be used as the benchmark values for COD, O & G, pH, Total Nitrogen, Total Phosphorus, and TSS in the permit. The goal for the permittee is to discharge wastewater consistently below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters.

Effluent quality will be monitored semi-annually as a condition of the permit to ensure benchmark values are not exceeded. A permit condition is included in Part C of the permit that requires a Corrective Action Plan (CAP), within 90 days, if any benchmark values are exceeded during a sampling event. This CAP can require the permittee to perform additional monitoring and reevaluate the BMPs being implemented on-site. However, in general, sample results meeting benchmark concentrations will be considered representative of non-degrading discharges.

Proposed Effluent Limitations and Monitoring Requirements

The proposed effluent monitoring requirements for Outfall 001 are displayed in Table 3 below. They are the most stringent values from the above effluent limitation development. The sampling frequency is semi-annual to be consistent with the PAG-03 general permit sampling frequency. A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan whenever there is an exceedance of any benchmark value, which are also included in the Part C

condition. The benchmark values are displayed below in Table 3. These values are not effluent limitations. An exceedance of the benchmark value is not a violation. As described above, if there is an exceedance of the benchmark values, a Corrective Action Plan must be developed and submitted to the Department to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater. To ensure that the discharge is not degrading the high-quality waters, the no exposure benchmark values will be used as the benchmark values in the permit.

Table 3: Proposed Effluent Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Nitrogen	Monitor and Report	2.0	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1.0	1/6 Months	Grab
Oil & Grease (O & G)	Monitor and Report	5.0	1/6 Months	Grab
pH	Monitor and Report	9.0	1/6 Months	Grab
Chemical Oxygen Demand (COD)	Monitor and Report	30	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	30	1/6 Months	Grab

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	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: No. BPNPSM-PMT-001, No. BCW-PMT-032
☐	Other: