Pennsylvania Department of Environmental Protection

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0050016**
Facility Type	**Industrial**	APS ID	**1112966**
Major / Minor	**Minor**	Authorization ID	**1483731**

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

Applicant and Facility Information

Applicant Name	**Optinova Valley Forge Inc.**	Facility Name	**Optinova Plymouth Meeting Facility**
Applicant Address	435 School Lane	Facility Address	435 School Lane
	Plymouth Meeting, PA 19462-2744		Plymouth Meeting, PA 19462-2744
Applicant Contact	Vincent Torelli	Facility Contact	Vincent Torelli
Applicant Phone	(484) 845-3166	Facility Phone	(484) 845-3166
Client ID	362572	Site ID	260863
SIC Code	3082	Municipality	Plymouth Township
SIC Description	Manufacturing - Unsupported Plastics, Profile Shapes	County	Montgomery
Date Application Received	May 3, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Renewal.

Summary of Review

The permittee has requested to renew their NPDES permit for wastewater and stormwater discharge to Diamond Run through Outfall 001 and 002.

Optinova specializes in advanced tubing solutions for the extrusion, medical, and specialty industries and manufactures fluoropolymer tubing, coated wire, cable, plastic tubing, and specialty tubing products (SIC 3082). The well water is used for extruder cooling, process cooling, and air compression cooling. Process water from extruder and process cooling flows through the facility drains to the outfall.

Based on application:

"Optinova transferred this NPDES permit from Markel Corporation in April 2021. Since Optinova took over operations at the facility, a total of 9 extruders were removed from the facility, reducing the total number of extruders from 16 to 7. As a result of the removal of these extruders, the amount of wastewater discharge at the facility was reduced. Therefore, Optinova no longer operates under Discharge Docket No. D-2014-013-2 issued by the Delaware River Basin Commission. This docket was terminated in November 2023."

Review of the summaries of the effluent data shows no issues with meeting previously established effluent limits and monitoring requirements for Outfalls 001 and 002.
Pages 6 and 7 of this factsheet includes previously established effluent limits and monitoring requirements.

Therefore, all effluent limits will be proposed in draft permit.

Act 14 Notifications:

Approve	Deny	Signatures	Date
X		Begay Omuralieva Begay Omuralieva / Environmental Engineering Specialist	April 29, 2025
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	04/29/2025

Summary of Review

Montgomery County Planning Commission received a notification about the submittal of renewal application to DEP on May 2, 2024.
Plymouth Meeting Township received a notification about the submittal of renewal application to DEP on May 2, 2024.

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	Design Flow (MGD)	0.1 MGD
Latitude	40Âº 6' 40.95"	Longitude	-75Âº 18' 51.44"
Quad Name		Quad Code	
Wastewater Description:	IW Process Effluent with ELG (process extruder and cooling water) and stormwater runoffs from building roof		
Receiving Waters	Diamond Run (WWF, MF)	Stream Code	00943
NHD Com ID	25985538	RMI	0.9200
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, FLOW REGIME MODIFICATION, SILTATION		
Source(s) of Impairment	CHANNELIZATION, REMOVAL OF RIPARIAN VEGETATION, URBAN RUNOFF/STORM SEWERS		

Changes Since Last Permit Issuance: none

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	002		
Latitude	40Âº 6' 40.00"	Longitude	-75Âº 18' 52.00"
Quad Name		Quad Code	
Wastewater Description:	stormwater		
Receiving Waters	Diamond Run	Stream Code	00943
NHD Com ID	25985538	RMI	
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.		Chapter 93 Class.	
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, FLOW REGIME MODIFICATION, SILTATION		
Source(s) of Impairment	CHANNELIZATION, REMOVAL OF RIPARIAN VEGETATION, URBAN RUNOFF/STORM SEWERS		

Changes Since Last Permit Issuance: None

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.00207	0.00592	0.00281	0.00803	0.00591	0.00309	0.00336	0.00582	0.00506	0.00472	0.00471	0.00250
Flow (MGD) Daily Maximum	0.00207	0.00592	0.00281	0.00803	0.00591	0.00309	0.00336	0.00582	0.00506	0.00472	0.00471	0.00250
pH (S.U.) Instantaneous Minimum	7.7	7.0	6.6	7.2	7.4	7.8	7.3	7.4	7.5	7.8	7.2	7.5
pH (S.U.) Instantaneous Maximum	7.7	7.0	6.6	7.2	7.4	7.8	7.3	7.4	7.5	7.8	7.2	7.5
Temperature (ºF) Instantaneous Maximum	55	49	62	60	74	76	86	79	76	65	66	64
BOD5 (lbs/day) Average Monthly	0.040	0.153	< 0.047	< 0.134	0.222	0.170	0.261	0.199	< 0.084	0.240	0.141	0.937
BOD5 (lbs/day) Daily Maximum	0.040	0.153	< 0.047	< 0.134	0.222	0.170	0.261	0.199	< 0.084	0.240	0.141	0.937
BOD5 (mg/L) Average Monthly	2.3	3.1	< 2.0	< 2	4.5	6.6	9.3	4.1	< 2.0	6.1	3.6	45.0
BOD5 (mg/L) Daily Maximum	2.3	3.1	< 2.0	< 2.0	4.5	6.6	9.3	4.1	< 2.0	6.1	3.6	45.0
TSS (lbs/day) Average Monthly	0.0172	< 0.0493	< 0.0234	0.0669	< 0.0493	1.0305	< 0.028	0.2424	0.0422	0.1180	< 0.0392	0.0208
TSS (lbs/day) Daily Maximum	0.0172	< 0.0493	< 0.0234	0.0669	< 0.0493	1.0305	< 0.028	0.2424	0.0422	0.1180	< 0.0392	0.0208
TSS (mg/L) Average Monthly	1.0	< 1.0	< 1.0	1	< 1	40.0	< 1.0	5.0	1.0	3.0	< 1.0	1.0
TSS (mg/L) Daily Maximum	1.0	< 1.0	< 1.0	1.0	< 1.0	40.0	< 1.0	5.0	1.0	3.0	< 1.0	1.0
Total Dissolved Solids (mg/L) Daily Maximum			419			728			673			212
Oil and Grease (lbs/day) Average Monthly	< 0.086	< 0.247	< 0.117	< 0.335	< 0.246	< 0.129	< 0.14	< 0.242	< 0.211	< 0.197	< 0.196	< 0.104
Oil and Grease (lbs/day) Daily Maximum	< 0.086	< 0.247	< 0.117	< 0.335	< 0.246	< 0.129	< 0.14	< 0.242	< 0.211	< 0.197	< 0.196	< 0.104

Oil and Grease (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Oil and Grease (mg/L) Daily Maximum	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Oil and Grease (mg/L) Instantaneous Maximum	< 5.0	< 5.0	< 5.0	< 5	< 5	< 5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Copper (mg/L) Daily Maximum			0.016			< 0.010			< 0.01			0.022
Bis(2-Ethyl-hexyl)Phthalate (mg/L) Average Monthly	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.0002	< 0.005	< 0.005	< 0.005	< 0.005

DMR Data for Outfall 002 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
pH (S.U.) Daily Maximum			7.08						6.78			
TSS (mg/L) Daily Maximum			8						8			
Oil and Grease (mg/L) Daily Maximum			< 5						< 5			
Total Zinc (mg/L) Daily Maximum			0.019						0.021			

Compliance History

Effluent Violations for Outfall 001, from: April 1, 2024 To: February 28, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	09/30/24	Daily Max	40.0	mg/L	19.0	mg/L

The comment from the permittee*: The system has been flushed as a result of the high Total Suspended Solids test result. It is expected that the Total Suspended Solids test result will be under the permit limit of 19 mg/L for the next sampling event.*

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	0.00065
Latitude	40° 6' 38.64"	**Longitude**	75° 18' 49.27"

Wastewater Description: Extruder process and cooling water, and stormwater

Technology-Based Limitations

This discharge is subject to the effluent limitations' guidelines outlined in the Plastics Molding and Forming Point Source Category, Subpart A – Contact Cooling and Heating Water Subcategory (40 CFR 463.12).

The BAT (best available technology economically achievable) effluent limitations guidelines for bis(2-ethylhexyl) phthalate are reserved under 40 CFR 463.13. The EPA had determined that, with the exception of bis(2-ethylhehyl) phthalate, there are no toxic pollutants in treatable concentrations in contact cooling and heating water.

Technology based effluent limitation guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT) include:

Pollutant or pollutant property	Maximum for any 1 day (mg/l)
BOD_5	26
Oil and Grease	29
TSS	19
pH	Within the range of 6 to 9 at all times

40 CFR 463.12 requires that permit limits shall be expressed as mass of pollutants discharged. Mass of pollutant limits were determined by the following formula:

Max. Loading (lb/day) = Max. Conc. (mg/l) x (1 x 10-6) x 40,000 gal/day x 8.34 lbs/gal

Oil and Grease: In accordance with 25 Pa Code 95.2, the limits of oil and grease for an industrial discharge are 15 mg/l daily limit, and 30 mg/l instantaneous limit. The 15 mg/l daily limit was used previously in lieu of the ELG limit.

TSS: In accordance with DRBC 3.10.4.D.1.a, the TSS limits are 30 mg/l monthly average, 60 mg/l daily maximum, and 75 mg/l instantaneous maximum. This is less stringent than the ELG. Therefore, use the ELG limit.

The technology based effluent limits for this facility, based on an average flow of 40,000-gpd:

Pollutant	Maximum Concentration (mg/l)	Maximum Loading (lb/day)	Criteria
BOD_5	26	8.6	40 CFR 463.12
Oil & Grease	15	5.0	25 Pa Code 95.2
TSS	19	6.3	40 CFR 463.12
pH	6 – 9 s.u.	N/A	40 CFR 463.12

Water Quality-Based Limitations

The facility will be subject to water quality based effluent limits, or monitoring requirements, if the discharge from the facility has the potential to cause the receiving stream to exceed in-stream criteria. The first step of this evaluation is to compare the maximum potential discharge concentration from the facility against the in-stream goal. If the maximum potential discharge of a particular pollutant is greater than the in-stream goal, then further evaluation of the parameter is required. In-stream goals are derived from the more stringent of criteria contained in Chapter 93 "Water Quality Standards" and Chapter 16 "Water Quality Toxics Management Strategy." In cases where there are technology based effluent limitations guidelines (ELG) for the facility, then the ELG will be evaluated to see if it is protective of in-stream goals. The more restrictive of the effluent limits will be included in the permit.

Water Quality Based Effluent Screening Worksheet

Parameter	Units	Reported on DMR (max)	Criteria	Criteria Standard	Of Further Concern?
BOD_5	mg/l	15.8	26	40 CFR 463	Yes ELG limit
TSS	mg/l	18	19	40 CFR 463	No
Oil & Grease	mg/l	4.2	15	25 Pa 95.2	No
pH	s.u.	7.0-8.1	6-9	25 Pa 93.7	No
Temp	Deg F	79	110	DRBC	No
Bis(2-Ethylhexyl) phthalate	ug/l	<2.7	1.2	HH - CRL	Yes Monitor

Notes: DMRs reviewed were from January 2018 thru December 2018 (12 months)

WQBEL - Parameters of Further Concern Evaluation

Parameter Name	Units	Aquatic Life		Human Health		WQBEL Limits	
		CCC	CMC	HH	H, T&O, CRl, EST	Conc.	Comments
Bis(2-Ethylhexyl) phthalate	ug/l	910	4500	1.2	CRL	Monitor	Current permit

Comments:

Bis(2-Ethylhexyl) phthalate: This parameter is reserved under 40 CFR 463.13. Based on 2014's fact sheet: *DEP PENTOXSD model determined that the WQBEL = 12.3 ug/l. Assuming the non-detect concentrations are at a method detection limit (MDL) of 2.5 mg/l, the average concentration for the 12 samples is 4.3 mg/l*. Review of the current 2018 sampling results concluded the annual average concentration is less than the calculated WQBEL, continuation to monitor for this parameter is proposed in the draft permit.

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	Daily Maximum	Average Monthly	Daily Maximum	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
Temperature (deg F) (ºF)	XXX	XXX	XXX	XXX	XXX	110	1/month	Grab
Biochemical Oxygen Demand (BOD5)	Report	10.2	Report	26.0	XXX	XXX	1/month	24-Hr Composite
Total Suspended Solids	Report	7.4	Report	19.0	XXX	XXX	1/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite
Oil and Grease	Report	5.9	Report	15	XXX	30	1/month	Grab
Copper, Total	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite
Bis(2-Ethylhexyl)Phthalate	XXX	XXX	XXX	Report Avg Mo	XXX	XXX	1/month	24-Hr Composite

Compliance Sampling Location: Outfall 001

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		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Suspended Solids	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Zinc, Total	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 002