pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0222771**
Facility Type	**Industrial**	APS ID	**1044241**
Major / Minor	**Minor**	Authorization ID	**1363258**

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

Applicant and Facility Information

Applicant Name	**International Waxes Inc.**	Facility Name	**International Waxes Titusville**
Applicant Address	1007 E Spring Street	Facility Address	1007 E Spring Street
	Titusville, PA 16354-7826		Titusville, PA 16354-7826
Applicant Contact	Stacey Logue, Plant Manager	Facility Contact	Stacey Logue, Plant Manager
Applicant Phone	(814) 827-4911	Facility Phone	(814) 827-4911
Applicant E Mail	SLogue@igiwax.com	Facility E Mail	
Client ID	242244	Site ID	254387
Municipality	Titusville City	County	Crawford
SIC Code	2999	SIC Code	
SIC Description	Mfg - Petroleum And Coal Products, NEC	SIC Description	
Date Application Received	July 23, 2021	EPA Waived?	Yes
Date Application Accepted	August 19, 2021	If No, Reason	
Purpose of Application	NPDES permit renewal		

Summary of Review

No current violations.

Outfall 101 is a mixed storm and non-contact cooling water discharge to a dry drainage swale with no aquatic life present. Analysis limitations indicate hexavalent and trivalent chromium are below detection and hexavalent chromium may be greater than trivalent chromium. According to the Toxic Management Spreadsheet, aluminum. Iron and hexavalent chromium are significant dry drainage swale pollutants. At the confluence with Oil Creek sufficient assimilative capacity is present so that chlorine, aluminum, iron and hexavalent chromium are no longer an environmental concern. No chemical use is reported.

Outfall 001 is shared with several nearby independent industrial facilities.

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.

Approve	Deny	Signatures	Date
X		William H. Mentzer William H. Mentzer, P.E. Environmental Engineering Specialist	February 16, 2022
X		Justin C. Dickey Justin C. Dickey, P.E. Environmental Engineer Manager	April 4, 2022

Discharge, Receiving Waters and Water Supply Information

Outfall No.	101	Design Flow (MGD)	0.017
Latitude DP	41º 37' 28.91"	Longitude DP	-79º 39' 13.78"
Latitude NHD	41º 37' 24.82"	Longitude NHD	-79º 39' 24.94"
Quad Name	Titusville South	Quad Code	0608
Wastewater Description:	Combined IW without ELG; Stormwater and Noncontact Cooling Water (NCCW)		

Receiving Waters	Unnamed tributary to Oil Creek	Stream Code	unknown
NHD Com ID	100473127	RMI	0.1
Drainage Area	0.13	Yield (cfs/mi^2)	0.1018
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Oil Creek Rouseville
Elevation (ft)	1158.17	Slope (ft/ft)	0.00346
Watershed No.	16-E	Chapter 93 Class.	CWF
Existing Use	**statewide**	Existing Use Qualifier	none
Exceptions to Use	none	Exceptions to Criteria	none
Comments	Confluence with Oil Creek at Node RMI 0.42 and stream RMI 17.91. Basin drainage 175.255 square mile. Basin elevation is 1156.37 feet		

Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake	Aqua PA Emlenton		
PWS Waters	Allegheny River	Flow at Intake (cfs)	1250
PWS RMI	90.57	Distance from Outfall (mi)	59.68

Changes Since Last Permit Issuance: none

Other Comments: The Allegheny River has a minimum release above the intake in Franklin

Stormwater monitoring requirements are not being proposed due to the following considerations:

1. *Stormwater monitoring is not in the existing permit.*
2. *No significant organics were reported in the application.*
3. *Outfall 001 at Oil creek should be a municipal stormwater monitoring point. It has several industrial point source discharges and municipal stormwater discharges.*
4. *The facility would fall under Appendix M of the PAG-03. Outfall 101 already includes monthly monitoring off all three parameters requiring monitoring under Appendix M (pH, Oil and Grease, and TSS).* JCD

Treatment Facility Summary				
Treatment Facility Name: International Waxes Titusville				
WQM Permit No.	**Issuance Date**			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Industrial	NA		NA	0.017
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.017	NA		NA	NA

Changes Since Last Permit Issuance: none

Other Comments: propriety non-contact cooling system.

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Titusville International Waxe, NPDES Permit No. PA0222771, Outfall 101

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ *Hydrodynamics*

☑ *Wasteload Allocations*

☑ ***AFC*** CCT (min): 15 PMF: 0.348 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	177,679	
Total Chromium (III)	0	0		0	569.763	1,803	427,151	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	3,860	Chem Translator of 0.982 applied
Total Iron	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): ###### PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	74.115	86.2	58,464	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	7,052	Chem Translator of 0.962 applied
Total Iron	0	0		0	1,500	1,500	1,017,603	WQC = 30 day average; PMF = 1
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): ###### PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	

Model Results 2/16/2022 Page 1

Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	

☑ ***CRL*** CCT (min): 41.961 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	113,885	µg/L	Discharge Conc ≤ 10% WQBEL
Total Chromium (III)	58,464	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	2,474	µg/L	Discharge Conc ≤ 10% WQBEL
Total Iron	1,017,603	µg/L	Discharge Conc ≤ 10% WQBEL
Total Phenols (Phenolics) (PWS)	N/A	N/A	Discharge Conc < TQL

Compliance History

DMR Data for Outfall 101 (from January 1, 2021 to December 31, 2021)

Parameter	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21
Flow (MGD) Average Monthly	0.0256	0.0267	0.0226	0.0206	0.0253	0.0234	0.0256	0.0229	0.0265	0.0295	0.0272	0.023
pH (S.U.) Minimum	6.9	7.4	7.2	8.0	7.6	7.9	8.0	7.8	6.1	7.3	6.8	7.1
pH (S.U.) Maximum	6.9	7.4	7.2	8.0	7.6	7.9	8.0	7.8	6.1	7.3	6.8	7.1
TRC (mg/L) Average Monthly	0.21	0.01	0.01	0.06	0.01	0.12	0.08	0.32	0.09	0.11	0.26	0.21
TRC (mg/L) Daily Maximum	0.21	0.01	0.01	0.06	0.01	0.12	0.08	0.32	0.09	0.11	0.26	0.21
Oil and Grease (mg/L) Average Monthly	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	< 5	< 5	5	< 5
Oil and Grease (mg/L) Daily Maximum	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	< 5	< 5	5	< 5

Reported flows include storm water

Application Data

	MIN	MEAN	MAX	#	ND	MEAN	MAX	#	MDL
BOD5		3.33	5.0	3	0	6.0	6.0	1	2.0
COD		< 6.33	7.0	3	1	21.0	21.0	1	5.0
TOC		3.6	4.92	3	0				
TSS		< 6.0	9.0	3	1	8.0	8.0	1	3.0
N						2.66	2.66	1	1.0
P						< 0.15	< 0.15	1	0.15
Am		<0.462	0.588	3	2				
pH	6.1	7.3	8.0	24		8.0	8.8	1	
O&G		< 5.58	11.0	12	6	< 5.0	< 5.0	1	5.0
TRC		0.18	0.32	12	0	0.07	0.07	1	0
TDS		1193.33	1300.0	3	0				
Phenolics						<0.005	< 0.005	1	0.005
Cr						<0.008	<0.008	1	0.008
Cr6						< 0.05	< 0.05	1	0.05
Br						<0.1	<0.1	1	0.1
Chloride						216.0	216.0	1	30.0
Al						0.292	0.292	1	0.012
				Iron		0.334	0.334	1	0.075

Compliance History

No violations reported

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 101, 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	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
TRC	XXX	XXX	XXX	0.5	0.8 Daily Max	1.2	1/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0	23.0 Daily Max	30	1/month	Grab

Compliance Sampling Location: Outfall 101 prior to mixing with any other waters