

Application Type Renewal
 Facility Type Industrial
 Major / Minor Minor

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

Application No. PA0253006
 APS ID 1148984
 Authorization ID 1546759

Applicant and Facility Information

Applicant Name	<u>Cook Inc.</u>	Facility Name	<u>Cook Vandergrift</u>
Applicant Address	<u>1186 Montgomery Lane</u> <u>Vandergrift, PA 15690-6065</u>	Facility Address	<u>1186 Montgomery Lane</u> <u>Vandergrift, PA 15690-6065</u>
Applicant Contact	<u>Ryon Mazzond</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 553-6251</u>	Facility Phone	<u></u>
Applicant Email	<u>ryon.mazzon@cookmedical.com</u>		<u></u>
Client ID	<u>307309</u>	Site ID	<u>655285</u>
SIC Code	<u>3841</u>	Municipality	<u>Parks Township</u>
SIC Description	<u>Manufacturing - Surgical and Medical Instruments</u>	County	<u>Armstrong</u>
Date Application Received	<u>October 23, 2025</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>January 28, 2026</u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES Permit Renewal Application for the Discharge of Treated Industrial Waste</u>		

Summary of Review

Cook Vandergrift Inc. is a manufacturer of specialized reproductive health devices for vitro fertilizations, and other medical devices. Waste(s) generated in the manufacturing of products include Acetone, Methanol, 2-Propanol and various other chemical waste(s). Maintenance of the facility generates waste oil, used fluorescent lights, and lithium batteries.

A groundwater seep impacted by organic contaminants has been identified on site with Trichloroethene (TCE) detected at the highest concentration. The volatile organic compounds (VOCs) detected in groundwater at the site are associated with the historical operations conducted when the property was part of the former NUMEC/Arco Medical/Babcock and Wilcox Facility, where Trichloroethene (TCE) was reportedly used to process nuclear materials.

Groundwater cleanup system consists of a groundwater collection trench located beneath the footprint of the facility that conveys groundwater to a collection manhole. The groundwater is then pumped using a 20 gpm self-priming pump to two liquid phase activated carbon tanks containing 500-pounds of Granular Activated Carbon (GAC) used for the removal of dissolved-phase volatile organic compounds including Trichloroethylene and cis-1,2-Dichloroethylene. Treatment includes filtration to remove suspended solids. No backwash is performed for this system.

The existing treatment facilities are permitted under WQM Permit No. 0306201 issued on May 24, 2006. The WQM permit was transferred to the current permittee on December 2, 2014.

Treated groundwater is discharged via Outfall 001 along with stormwater. The stormwater at Outfall 001 is covered under a No Exposure Certification. There are no ELGs apply to this facility.

An inspection of the facility was conducted on January 24, 2024. The inspection report did not cite any violations.

Approve	Deny	Signatures	Date
X		Aeshah Shameseldin Aeshah Shameseldin / Project Manager	February 3, 2026
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	February 4, 2026

Summary of Review

The facility's PPC Plan was received with the permit renewal application. The PPC Plan was last revised on July 30, 2025.

Act 14 – Proof of Notification was submitted and received.

There are NO open violations in WMS for the subject Client ID (307309) as of February 3, 2026.

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.	<u>001</u>	Design Flow (MGD)	<u>.036</u>
Latitude	<u>40° 37' 44.00"</u>	Longitude	<u>-79° 35' 8.00"</u>
Quad Name	<u>Leechburg</u>	Quad Code	<u>40079F5</u>
Wastewater Description: <u>Groundwater Cleanup Discharge</u>			
Receiving Waters	<u>Kiskiminetas River (WWF)</u>	Stream Code	<u>42816</u>
NHD Com ID	<u>125290358</u>	RMI	<u>7.86</u>
Drainage Area	<u>1862 square miles</u>	Yield (cfs/mi ²)	<u>0.082</u>
Q ₇₋₁₀ Flow (cfs)	<u>152.68</u>	Q ₇₋₁₀ Basis	<u>Calculated</u>
Elevation (ft)	<u>763</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>18-B</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	<u>---</u>	Existing Use Qualifier	<u>---</u>
Exceptions to Use	<u>---</u>	Exceptions to Criteria	<u>---</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals, Total Suspended Solids (TSS)</u>		
Source(s) of Impairment	<u>Acid Mine Drainage</u>		
TMDL Status	<u>Final</u>	Name	<u>Kiskiminetas-Conemaugh River Watersheds TMDL</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.0</u>	Default	
Temperature (°F)	<u>77</u>	Default	
Hardness (mg/L)	<u>100</u>	Default	
Other:	<u>---</u>	---	
Nearest Downstream Public Water Supply Intake	<u>Buffalo Township Municipal Water Authority - Freeport</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>---</u>
PWS RMI	<u>30.0</u>	Distance from Outfall (mi)	<u>8.5</u>

Changes Since Last Permit Issuance: N/A

Other Comments: The Kiskiminetas River—the receiving waters for discharges from Outfall 001—is impaired by Total Suspended Solids and Acid Mine Drainage, but the subject facility is not expected to be a cause or source of the impairment.

Compliance History

DMR Data for Outfall 001 (from December 1, 2024, to November 30, 2025)

Parameter	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24
Flow (MGD) Average Monthly	0.005664	0.004285	0.006531	0.007184	0.008759	0.008833	0.008011	0.007480	0.006386	0.006859	0.005683	0.005931
Flow (MGD) Daily Maximum	0.006415	0.006354	0.006728	0.008273	0.011782	0.011438	0.010265	0.009110	0.008099	0.009044	0.006004	0.006441
pH (S.U.) Instantaneous Minimum	6.41	6.41	6.61	6.61	6.43	6.39	6.37	6.32	6.51	6.47	6.49	6.45
pH (S.U.) Instantaneous Maximum	6.38	6.39	6.63	6.49	6.61	6.43	6.62	6.62	6.47	6.57	6.57	6.53
Total Manganese (mg/L) Instantaneous Maximum			0.00931			0.0135			< 0.004			0.0013
cis-1,2- Dichloroethylene (mg/L) Average Monthly	< 0.00180	< 0.0018	< 0.0018	< 0.00180	< 0.0018	< 0.00180	< 0.00180	< 0.00180	< 0.0018	< 0.0018	< 0.0018	< 0.0018
cis-1,2- Dichloroethylene (mg/L) Instantaneous Maximum	< 0.0018	< 0.0018	< 0.0018	< 0.00180	< 0.0018	< 0.00180	< 0.00180	< 0.00180	< 0.0018	< 0.00180	< 0.0018	< 0.00180
Trichloroethylene (mg/L) Average Monthly	< 0.0023	< 0.0023	< 0.0023	< 0.00230	< 0.0023	< 0.00230	< 0.00230	< 0.00230	< 0.00230	< 0.0023	< 0.0023	< 0.0023
Trichloroethylene (mg/L) Instantaneous Maximum	< 0.0023	< 0.0023	< 0.0023	< 0.00230	< 0.0023	< 0.00230	< 0.00230	< 0.00230	< 0.0023	< 0.00230	< 0.0023	< 0.0023

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>.036</u>
Latitude <u>40° 37' 44.00"</u>	Longitude <u>-79° 35' 8.00"</u>
Wastewater Description: <u>Groundwater Cleanup Discharge</u>	

Technology-Based 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)
Trichloroethylene	0.005	Average Monthly	40 CFR § 125.3	N/A

Comments: According to the US EPA Drinking Water Treatability Database (Attachment 1), Granular Activated Carbon (GAC) has been identified as a Best Available Technology (BAT) for the removal of Trichloroethylene (TCE) from drinking water. Because GAC remains the current treatment technology employed at this facility, the technology-based limitation of 0.005 mg/L for Trichloroethylene established in the previous permits will be retained.

Water Quality-Based Limitations

A Reasonable Potential Analysis was performed using the Department's Toxic Management Spreadsheet (Attachment 2). Based on the facility's maximum operating flow of 0.0189 MGD, the spreadsheet did not recommend monitoring requirements or WQBELs for parameters detected in the discharge and sampled in Module 2 submitted with the renewal application using. However, due to the existing groundwater contamination, the effluent limits established for Trichloroethylene and the effluent monitoring requirement for cis-1,2-Dichloroethylene will be retained in this renewal.

Kiskiminetas River Basin

The Kiskiminetas River Watershed is impaired by Acid Mine Drainage and TMDLs have been established for Iron, Manganese, and Aluminum. Cook Vascular Inc. was included as part of the "Negligible Discharge Gross WLA" and therefore, does not have an individual Waste Load Allocation (WLA).

Water quality data for Group 1 Pollutants including Iron, Aluminum and Manganese were received for the effluent on September 28, 2011, and for the treatment facility influent on June 25, 2015. In both sets of samples, average concentrations of Iron and Aluminum were below the detection limit of 0.1 mg/L. However, average concentrations of Manganese were 0.038 mg/L in the influent and 5.53 mg/L in the effluent. Therefore, to verify and support the "TMDL Negligible Discharge Gross WLA" and to evaluate seasonal variation in manganese levels in the groundwater, a quarterly monitoring requirement for Total Manganese was established.

To continue supporting the TMDL evaluation, the quarterly monitoring requirement established for Total Manganese and included in the previous permits will be retained.

Best Professional Judgment (BPJ) Limitations

An inspection of the facility that was conducted on January 24, 2024, along with a Google Earth site review indicates that the facility is in compliance with No Exposure requirements. A review of the stormwater sampling results submitted with the renewal application shows that pollutants levels are below the "No Exposure" benchmarks except for Total Nitrogen and Chemical Oxygen Demand. Although exceedances were reported for these parameters, they are minor and are not considered a concern. As a result, no stormwater monitoring requirements will be implemented in the permit.

Table 1: No Exposure Benchmark Values

Parameter	Sampling Results (mg/L)	Benchmark Values (mg/L)
pH (S.U.)	Min 7.8 – Max 7.9	6.0 to 9.0
Total Suspended Solids (TSS)	< 5.0	≤ 30.0
Total Nitrogen	2.95	≤ 2.0
Total Phosphorus	< 0.40	≤ 1.0
Oil and Grease	< 1.40	≤ 5.0
Chemical Oxygen Demand (COD)	49.0	≤ 30.0
BOD5	4.50	≤ 10

Anti-Backsliding

Effluent limits, monitoring requirements and conditions are being retained from the previous permit in accordance with the EPA's anti-backsliding regulation 40 CFR 122.44(l). No changes to the current effluent limits or monitoring requirements are proposed as part of this renewal.

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" (386-0400-001), 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	Average Monthly	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/month	Grab
Total Manganese	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
cis-1,2-Dichloroethylene	XXX	XXX	Report	XXX	XXX	Report	2/month	Grab
Trichloroethylene	XXX	XXX	XXX	0.005	XXX	0.012	2/month	Grab

Compliance Sampling Location: at Outfall 001, Prior to Mixing with Any Other Waters.

Other Comments: Flow, Total Manganese, and cis-1,2-Dichloroethylene are monitor only based on Chapter 92a.61. The limits for pH are technology-based on Chapter 95.2(1). The limits for Trichloroethylene (TCE) are technology- based on the US EPA Drinking Water Treatability Database.

Cook Vandergrift Facility – eMap with Aerial Imagery



Outfall Location & Receiving Stream – eMap with Aerial Imagery

Legend

- Regulated Facilities and Related Information
- Streams and Water Resources
 - Water Quality
 - Existing Use Streams
 - Cold Water Fish
 - Exceptional Value
 - High Quality
 - Trout Stocking
 - Warm Water Fish
 - Overlap
 - Designated Use Streams
 - Cold Water Fish
 - Exceptional Value
 - High Quality
 - Trout Stocking
 - Warm Water Fish
 - Overlap
 - Missing from CH93
 - Boundaries
 - County Boundaries
 - Municipalities

Designated Use Streams (1 of 5)

- Designated Use Gen ID: 16356
- GNIS Name: Kiskiminetas River
- GNIS ID: 01192712
- ReachCode: 05010008000003
- COMID: 125290359
- Length Miles: 1.51
- Map Symbology: WWF
- Length Miles: 1.51
- Designated Use: 12
- DES Use ID: 8
- Use Description: WWF(WARM WATER FISHES)
- Migratory_Fish: N
- HUC: 05010008
- Basin: N
- Basin Narrative: Null
- Segment Narrative: Null
- Evaluation Date: Null
- Last Fdit Date: Null
- [Zoom to](#)

Locate Latitude and Longitude

Decimal Degrees DD/MM/SS

	Degrees	Minutes	Seconds
Latitude:	40	37	44
Longitude:	-79	35	8

Locate Close

Imagery: Source: Esri, Vantor, Earthstar Geographics, and the GIS User Community; ESRI Streets: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Drainage Area Location – StreamStats with Aerial Imagery

StreamStats Report

Region ID:

PA

Clicked Point (Latitude, Longitude):

40.62898, -79.58572

Time:

2026-01-28 10:36:25 -0500



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1862	square miles

Attachment 1



Drinking Water Treatability Database

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TCE

[Overview](#) [Treatment Processes](#) [Properties](#) [Fate and Transport](#) [References](#)

CAS Number: 79-01-6

Synonyms: Trichloroethene, Trichloroethylene

Contaminant Type: Chemical

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- [IRIS](#)

TCE is used primarily in metal degreasing operations. It is also used as a solvent for greases, oils, fats and tars, in paint removers, coatings and vinyl resins, and by the textile processing industry to scour cotton, wool and other fabrics. TCE may be used as a chemical intermediate in the production of polyvinyl chloride, pharmaceuticals, flame retardant chemicals and insecticides [1629]. TCE can also be found in household chemicals such as typewriter correction fluids and spot removers. [1251]

It has been found in underground water sources and many surface waters as a result of the manufacture, use, and disposal of the chemical [1251]. TCE may be introduced into surface water and groundwater in industrial effluents. Poor handling as well as improper disposal of TCE in landfills have been the main causes of groundwater contamination. The biodegradation of another volatile organic pollutant, tetrachloroethene (or perchloroethylene, PCE), in groundwater may also lead to the formation of TCE. [1629]

Because of their volatility, TCE and related solvents are seldom detected in concentrations greater than a few micrograms per liter in surface waters [1622], where volatilization is the principal route of degradation, while photodegradation and hydrolysis play minor roles [1629]. However, bodies of fresh water receiving wastewater discharges may contain elevated concentrations of organic solvents during periods of ice cover when volatilization is restricted [1622]. In groundwater, TCE is degraded slowly by microorganisms. Bioconcentration of trichloroethene in aquatic species is low. [1629]

Trichloroethylene has been detected in many samples taken from drinking water supplied by contaminated sources from which trichloroethylene and other volatile organic compounds are not always completely removed by conventional water treatment. The EPA Groundwater Supply Survey of finished water from 945 drinking water systems nationwide using groundwater sources found trichloroethylene in 91 water systems (detection limit 0.2 ppb); the median level of the positive samples was approximately 1 µg/L, with a single maximum level of 130 µg/L, as reported in 1984. A summary of U.S. groundwater analyses from both federal and state studies reported that trichloroethylene was the most frequently detected organic solvent and the one present in the highest concentration, as reported in 1982. An analysis of the EPA STORET Data Base (1980-1982) found that trichloroethylene had been positively detected in 28% of 9,295 surface water reporting stations nationwide. [1252] As of 2003, TCE has been found in at least 852 of the 1,430 National Priorities List sites identified by the US Environmental Protection Agency (USEPA). [1251]

TCE is regulated in drinking water in the US at a maximum contaminant level (MCL) of 0.005 mg/L. USEPA has identified granular activated carbon and packed tower aeration as the two Best Available Technologies (BATs) for removal of TCE from drinking water. [1250]

It is regulated based on its potential for adverse effects on the liver and for risk of inducing cancer.

Date of Literature Search: June 2009

¹²⁵⁰ Electronic Code of Federal Regulations, United States; 2009; Title 40, Part 141, Subpart G, Section 141.61 Maximum contaminant levels for organic contaminants; <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=a05e26cfb3d8ea7be7ac637c411c4c39&rgn=div8&view=text&node=40:22.0.1.1.3.7.16.2&idno=40>; As posted on 09/14/2009. Electronic Code of Federal Regulations, United States.

¹²⁵¹ US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry; 2003; Trichloroethylene CAS # 79-01-6 Division of Toxicology ToxFAQs; Trichloroethylene CAS # 79-01-6 Division of Toxicology ToxFAQs; 2 pages, US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, Atlanta, GA

¹²⁵² US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry; 1997; Toxicological Profile for Trichloroethylene; Toxicological Profile for Trichloroethylene; 335 pages, US Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, Atlanta, GA

¹⁶²² Love, T. and Eilers, R.; 1982; Treatment of drinking water containing trichloroethylene and related industrial solvents; J. AWWA; 74:8:413

¹⁶²⁹ World Health Organization; 2005; Trichloroethene in drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality; Trichloroethene in drinking-water - Background document for development of WHO Guidelines for Drinking-water Quality; WHO/SDE/WSH/05.08/22

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<http://iaspub.epa.gov/tdb/pages/contaminant/contaminantOverview.do;jsessionid=-56YaQFuXncXb-ZJur6W8oH6RBg0KxKX5NTP8CNYf8Jg50Xf1kz11427497975?contaminantId=10380>

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TCE / Granular Activated Carbon

Summary

Data

References

Date of Last Literature Search: July 2011

Granular activated carbon can achieve high to very high removals of TCE (from 75% up to greater than 99% removal). One study monitored full-scale treatment of a ground water for four months without detectable breakthrough. Another study reported short times to breakthrough but utilized a very high influent TCE concentration (1,000 ug/L). USEPA has identified granular activated carbon as a Best Available Technology for removal of TCE from drinking water.

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Attachment 2



Toxics Management Spreadsheet
Version 1.4, May 2025

Discharge Information

Instructions Discharge Stream

Facility: Cook Vandergrift NPDES Permit No.: PA0253006 Outfall No.: 001

Evaluation Type Major Sewage / Industrial Waste Wastewater Description: Groundwater Cleanup

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q ₇₋₁₀	Q _h
0.0189	100	6.5						

Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank		1 if left blank		Criteria Mod	Chem Transl	
			Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS				
Group 1	Total Dissolved Solids (PWS)	mg/L											
	Chloride (PWS)	mg/L											
	Bromide	mg/L											
	Sulfate (PWS)	mg/L											
	Fluoride (PVWS)	mg/L											
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L											
	Total Arsenic	µg/L											
	Total Barium	µg/L											
	Total Beryllium	µg/L											
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L											
	Hexavalent Chromium	µg/L											
	Total Cobalt	µg/L											
	Total Copper	mg/L											
	Free Cyanide	µg/L											
	Total Cyanide	µg/L											
	Dissolved Iron	mg/L	<	0.04									
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	mg/L		0.025									
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L											
Total Selenium	µg/L												
Total Silver	µg/L												
Total Thallium	µg/L												
Total Zinc	mg/L												
Total Molybdenum	µg/L												
Acrolein	µg/L	<											
Acrylamide	µg/L	<											
Acrylonitrile	µg/L	<											
Benzene	mg/L	<	0.0001										
Bromoform	µg/L	<											
Carbon Tetrachloride	µg/L	<											
Chlorobenzene	µg/L	<											
Chlorodibromomethane	µg/L	<											
Chloroethane	µg/L	<											
2-Chloroethyl Vinyl Ether	µg/L	<											

	Isophorone	µg/L	<																	
	Naphthalene	mg/L	<	0.0002																
	Nitrobenzene	µg/L	<																	
	n-Nitrosodimethylamine	µg/L	<																	
	n-Nitrosodi-n-Propylamine	µg/L	<																	
	n-Nitrosodiphenylamine	µg/L	<																	
	Phenanthrene	µg/L	<																	
	Pyrene	µg/L	<																	
	1,2,4-Trichlorobenzene	µg/L	<																	
Group 6	Aldrin	µg/L	<																	
	alpha-BHC	µg/L	<																	
	beta-BHC	µg/L	<																	
	gamma-BHC	µg/L	<																	
	delta BHC	µg/L	<																	
	Chlordane	µg/L	<																	
	4,4-DDT	µg/L	<																	
	4,4-DDE	µg/L	<																	
	4,4-DDD	µg/L	<																	
	Dieldrin	µg/L	<																	
	alpha-Endosulfan	µg/L	<																	
	beta-Endosulfan	µg/L	<																	
	Endosulfan Sulfate	µg/L	<																	
	Endrin	µg/L	<																	
	Endrin Aldehyde	µg/L	<																	
	Heptachlor	µg/L	<																	
	Heptachlor Epoxide	µg/L	<																	
	PCB-1016	µg/L	<																	
	PCB-1221	µg/L	<																	
	PCB-1232	µg/L	<																	
	PCB-1242	µg/L	<																	
PCB-1248	µg/L	<																		
PCB-1254	µg/L	<																		
PCB-1260	µg/L	<																		
PCBs, Total	µg/L	<																		
Toxaphene	µg/L	<																		
2,3,7,8-TCDD	ng/L	<																		
Group 7	Gross Alpha	pCi/L	<																	
	Total Beta	pCi/L	<																	
	Radium 226/228	pCi/L	<																	
	Total Strontium	µg/L	<																	
	Total Uranium	µg/L	<																	
	Osmotic Pressure	mOs/kg																		

For modeling purposes, the Point of Discharge (POD) was assigned an RMI value of 8.59, representing the distance in miles between the POD and the End of Reach 1 (Public Water Supply) location. This value differs from the actual RMI on Kiskiminetas River, which is 7.86. Similarly, the End of Reach 1 was assigned an RMI value of 0.01 for modeling consistency, although its actual RMI on the Allegheny River is 30.0 miles.



Stream / Surface Water Information

Cook Vandergrift, NPDES Permit No. PA0253006, Outfall 001

Instructions Discharge **Stream**

Receiving Surface Water Name: Kiskiminetas River No. Reaches to Model: 1

- Statewide Criteria
- Great Lakes Criteria
- ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi ²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	042816	8.59	763	1862			Yes
End of Reach 1	042122	0.01	746	11235			Yes

Q₇₋₁₀

Location	RMI	LFY (cfs/mi ²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	8.59	0.082										100	7		
End of Reach 1	0.01	0.082										100	7		

Q_b

Location	RMI	LFY (cfs/mi ²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	8.59														
End of Reach 1	0.01														



Model Results

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Instructions

Results

RETURN TO INPUTS

SAVE AS PDF

PRINT

All Inputs Results Limits

Hydrodynamics

Q₇₋₁₀

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time	Complete Mix Time (min)
8.59	152.68		152.68	0.029	0.00038	1.183	229.702	194.189	0.562	0.933	2900.783
0.01	921.27		921.27								

Q_h

RMI	Stream Flow (cfs)	PWS Withdrawal (cfs)	Net Stream Flow (cfs)	Discharge Analysis Flow (cfs)	Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Travel Time	Complete Mix Time (min)
8.59	602.04		602.04	0.029	0.00038	2.163	229.702	106.19	1.212	0.433	1173.362
0.01	2896.43		2896.43								

Wasteload Allocations

AFC

CCT (min): 15

PMF: 0.072

Analysis Hardness (mg/l): 100

Analysis pH: 7.00

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	640	640	240,971	
Ethylbenzene	0	0		0	2,900	2,900	1,091,899	
Tetrachloroethylene	0	0		0	700	700	263,562	
Toluene	0	0		0	1,700	1,700	640,079	
Trichloroethylene	0	0		0	2,300	2,300	865,989	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	140	140	52,712	

CFC

CCT (min): 720

PMF: 0.498

Analysis Hardness (mg/l): 100

Analysis pH: 7.00

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	

Benzene	0	0		0	130	130	338,345	
Ethylbenzene	0	0		0	580	580	1,509,541	
Tetrachloroethylene	0	0		0	140	140	364,372	
Toluene	0	0		0	330	330	858,877	
Trichloroethylene	0	0		0	450	450	1,171,196	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	43	43.0	111,914	

THH CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	300	300	780,797	
Total Manganese	0	0		0	1,000	1,000	2,602,657	
Benzene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	176,981	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	148,351	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	

CRL CCT (min): PMF: Analysis Hardness (mg/l): Analysis pH:

Pollutants	Stream Conc	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	0.58	0.58	9,356	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	10	10.0	161,306	
Toluene	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	0.6	0.6	9,678	
Vinyl Chloride	0	0		0	0.02	0.02	323	
Naphthalene	0	0		0	N/A	N/A	N/A	

Recommended WQBELs & Monitoring Requirements

No. Samples/Month:

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

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
Dissolved Iron	781	mg/L	Discharge Conc ≤ 10% WQBEL
Total Manganese	2,603	mg/L	Discharge Conc ≤ 10% WQBEL
Benzene	N/A	N/A	Discharge Conc < TQL
Ethylbenzene	N/A	N/A	Discharge Conc < TQL
Tetrachloroethylene	N/A	N/A	Discharge Conc < TQL
Toluene	N/A	N/A	Discharge Conc < TQL
Trichloroethylene	9.68	mg/L	Discharge Conc ≤ 25% WQBEL
Vinyl Chloride	N/A	N/A	Discharge Conc < TQL
Naphthalene	33.8	mg/L	Discharge Conc < TQL