pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0218146**
Facility Type	**Industrial**	APS ID	**782281**
Major / Minor	**Minor**	Authorization ID	**929105**

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

Applicant and Facility Information

Applicant Name	**Texas Eastern Transmission LP**	Facility Name	**Armagh Compressor Station**
Applicant Address	5400 Westheimer Court	Facility Address	862 Horse Thief Road
	Houston, TX 77056-5310		New Florence, PA 15944-8127
Applicant Contact	Niti Tottempudi	Facility Contact	Gregory St. Onge
Applicant Phone	713-627-5967	Facility Phone	701-720-5615
Client ID	82786	Site ID	245007
SIC Code	4922	Municipality	West Wheatfield Township
SIC Description	Trans. & Utilities - Natural Gas Transmission	County	Indiana
Date Application Received	May 31, 2012	EPA Waived?	No
Date Application Accepted	May 31, 2012	If No, Reason	First Time Imposing TMDL

Purpose of Application: NPDES Permit Renewal

Summary of Review

The Department received a renewal NPDES permit from Texas Eastern Transmission, LP for the Armagh Compressor Station on May 31, 2012. The site is a natural gas compressor station. The discharge at the site is the discharge from a groundwater cleanup system to treat Polychlorinated Biphenyls (PCBs).

Historic use of lubricating oils containing PCBs at the Armagh Compressor Station has caused PCBs to contaminate the groundwater. Texas Eastern entered into a consent decree to address the potential groundwater impact of the PCBs in the early 1990's. The wastewater treatment unit was originally installed in November 1992. In October 2002, a permanent building was erected at the site of the original temporary structure and a revised treatment system was installed in the permanent building. The wastewater treatment system is designed to remove small amounts of polychlorinated biphenyls (PCBs) from water. The sources of the water to be treated are, contaminated groundwater from the compressor building French drain system, stormwater from secondary containment dikes, air compressor condensate, hydrostatic test water from on-site pipe and equipment testing, and contaminated groundwater from intermittent maintenance and remedial activities. The wastewater is collected in a below ground collection tank and transferred to the treatment building for treatment. The major components of the treatment are a filter pump, a particulate pre-filter, four separate rows (banks) of canisters, each with two activated carbon canisters and a totalizing flow meter. The treatment system discharges via Outfall 001 to an Unnamed Tributary to East Branch Richards Run, designated in 25 PA Code Chapter 93 as Cold-Water Fishery.

Outfall 001 primarily discharges the treated groundwater but occasionally discharges hydrostatic test water. To better regulate and record the discharges of hydrostatic test water the Department has determined to impose the hydrostatic test water limitations and requirements by using an Internal Monitoring Point. The discharge of hydrostatic test water will be regulated at IMP 101.

The site has not been inspected in the past five years; it is recommended that the Operations Section schedule a site inspection.

Approve	Deny	Signatures	Date
X		Adam Olesnanik / Project Manager	September 9, 2021
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	September 20, 2021

Summary of Review

The permittee has no open violations.

It is recommended that a Draft NPDES Permit be published for public comment in response to this application.

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)	0.05
Latitude	40º 25' 51"	Longitude	-79º 5' 5"
Quad Name	New Florence	Quad Code	1513
Wastewater Description:	IW Process Effluent without ELG (treated PCB contaminated groundwater, air compressor condensate, stormwater, and hydrostatic test water)		
Receiving Waters	Unnamed Tributary to East Branch Richards Run (CWF)	Stream Code	44938
NHD Com ID	123721923	RMI	0.38
Drainage Area	0.0701	Yield (cfs/mi^2)	0.054
Q_{7-10} Flow (cfs)	0.00338	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1680	Slope (ft/ft)	0.001
Watershed No.	18-D	Chapter 93 Class.	CWF
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, Tentative	Name	Kiskiminetas-Conemaugh River Watersheds TMDL,Richards Run Watershed
Nearest Downstream Public Water Supply Intake	Saltsburg Municipal Waterworks		
PWS Waters	Conemaugh River	Flow at Intake (cfs)	124
PWS RMI	0.5	Distance from Outfall (mi)	34.4

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.05
Latitude 40º 25' 51" **Longitude** -79º 5' 5"
Wastewater Description: Treated PCB contaminated groundwater, air compressor condensate, stormwater, and hydrostatic test water.

Technology-Based Limitations

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1) which is displayed in Table 1 below.

Effluent standards for pH are also imposed on industrial wastes by 25 Pa. Code §§ 95.2(1) which is displayed in Table 1 below.

Table 1. Regulatory Effluent Standards

Parameter	Monthly Avg	Daily Max	IMAX
Flow	Monitor	Monitor	----
pH	6-9 at all times		----

Water Quality-Based Limitations

Toxics Management Spread Sheet

The Department of Environmental Protection (DEP) has developed the DEP Toxics Management Spreadsheet ("TMS") to facilitate calculations necessary for completing a reasonable potential (RP) analysis and determining water quality-based effluent limitations for discharges of toxic pollutants. The Toxics Management Spreadsheet is a macro-enabled Excel binary file that combines the functions of the PENTOXSD model and the Toxics Screening Analysis spreadsheet to evaluate the reasonable potential for discharges to cause excursions above water quality standards and to determine WQBELs. The Toxics Management Spread Sheet is a single discharge, mass-balance water quality calculation spread sheet that includes consideration for mixing, first-order decay and other factors to determine recommended WQBELs for toxic substances and several non-toxic substances. Required input data including stream code, river mile index, elevation, drainage area, discharge name, NPDES permit number, discharge flow rate and the discharge concentrations for parameters in the permit application or in DMRs, which are entered into the spread sheet to establish site-specific discharge conditions. Other data such as low flow yield, reach dimensions and partial mix factors may also be entered to further characterize the conditions of the discharge and receiving water. Discharge concentrations for the parameters are chosen to represent the "worst case" quality of the discharge (i.e., maximum reported discharge concentrations). The spread sheet then evaluates each parameter by computing a Waste Load Allocation for each applicable criterion, determining a recommended maximum WQBEL and comparing that recommended WQBEL with the input discharge concentration to determine which is more stringent. Based on this evaluation, the Toxics Management Spread sheet recommends average monthly and maximum daily WQBELs.

Reasonable Potential Analysis and WQBEL Development for Outfall 001

Discharges from Outfall 001 are evaluated based on concentrations reported on the application and on DMRs; data from those sources are entered into the Toxics Management Spread Sheet. The maximum reported value of the parameters from the application form or from previous DMRs is used as the input concentration in the Toxics Management Spread Sheet. All toxic pollutants whose maximum concentrations, as reported in the permit application or on DMRs, are greater than the most stringent applicable water quality criterion are considered to be pollutants of concern. [This includes pollutants reported as "Not Detectable" or as "<MDL" where the method detection limit for the analytical method used by the applicant is greater than the most stringent water quality criterion]. The Toxics Management Spread Sheet is run with the discharge and receiving stream characteristics shown in Table 2. For IW discharges, the design flow used in modeling is the average flow during production or operation taken from the permit application. Pollutants for which water quality standards have not been promulgated (e.g., TSS, oil and grease) are excluded from the analysis. All the parameters are evaluated using the model to determine the water quality-based effluent limits applicable to the discharge and the receiving stream. The spreadsheet then compares the reported discharge concentrations to the calculated water quality-

based effluent limitations to determine if a reasonable potential exists to exceed the calculated WQBELs. Effluent limitations are established in the draft permit where a pollutant's maximum reported discharge concentration equals or exceeds 50% of the WQBEL. For non-conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 25% - 50% of the WQBEL. For conservative pollutants, monitoring requirements are established where the maximum reported concentration is between 10% - 50% of the WQBEL. The information described above including the maximum reported discharge concentrations, the most stringent water quality criteria, the pollutant-of-concern (reasonable potential) determinations, the calculated WQBELs, and the WQBEL/monitoring recommendations are displayed in the Toxics Management Spread Sheet in Attachment B of this Fact Sheet. Based on the results from Toxics Management Spread Sheet no water quality-based effluent limitations or monitoring requirements are prescribed for the discharges from Outfall 001.

Table 2: TMS Inputs for Outfall 001

Parameter	**Value**
River Mile Index	0.38
Discharge Flow (MGD)	0.0016
Basin/Stream Characteristics	
Parameter	**Value**
Area in Square Miles	0.0701
$Q_{7\text{-}10}$ (cfs)	0.00338
Low-flow yield (cfs/mi^2)	0.054
Elevation (ft)	1,680
Slope	0.001

Total Maximum Daily Loads

Wastewater discharges from the Armagh Compressor station are located within the Kiskiminetas-Conemaugh River Watersheds for which the Department has developed a TMDL. The TMDL was finalized on January 29, 2010 and establishes waste load allocations for the discharge of aluminum, iron and manganese within the Kiskiminetas-Conemaugh River Watersheds. The Armagh Compressor Station's permit, PA0218146, is listed in the Appendix G of the Kiskiminetas-Conemaugh River Watershed TMDL, requiring load allocations and is displayed below in Table 3. Section 303(d) of the Clean Water Act and the U.S. Environmental Protection Agency's Water Quality Planning and Management Regulations (codified at Title 40 of the *Code of Federal Regulations* Part 130) require states to develop a TMDL for impaired water bodies. A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Kiskiminetas-Conemaugh River Watersheds are included in the state's 2008 Section 303(d) list because of various impairments, including metals, pH and sediment. The TMDL includes consideration for each river and tributary within the target watershed and its impairment sources. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 $^{mg}/_{L}$ total recoverable aluminum, 1.5 $^{mg}/_{L}$ total recoverable iron based on a 30-day average and 1.0 $^{mg}/_{L}$ total recoverable manganese. The reduction needed to meet the minimum water quality standards is then divided between each known point and non-point pollutant source in the form of a watershed allocation. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity).

Table 3: Kiskiminetas-Conemaugh River Watershed TMDL PA0218146 Load Allocations

Kiskiminetas River Watershed Minor Non-Mining Wasteload Allocations

Region	SWS	PERMIT	PIPE	Metal	Baseline Load (lbs/yr)	Baseline Concentration (mg/L)	Allocated Load (lbs/yr)	Allocated Concentration (mg/L)	% Reduction	Comments
5	4052	PA0218146	1	Aluminum	27	0.75	27	0.75	0	
5	4052	PA0218146	1	Iron	55	1.50	55	1.50	0	
5	4052	PA0218146	1	Manganese	37	1.00	37	1.00	0	

The discharge concentrations for aluminum, iron and manganese are listed in Table 4. Applicable water quality criteria for the TMDL watershed are imposed as effluent limits and also shown in Table 4. The Department reviewed the effluent concentrations of pollutants from Derry and determined that effluent limitations are required in order to meet the requirements of the TMDL.

Aluminum: The specific water quality criterion for aluminum is expressed as an acute or maximum daily in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for Outfall 001.

Iron: The specific water quality criterion for iron is expressed as a 30-day average of 1.5 $^{mg}/_{L}$ in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML. In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for Outfall 001.

Manganese: The specific water quality criterion for manganese is expressed as an acute or maximum daily of 1.0 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of human health and is associated with chronic exposure associated with a potable water supply (PWS). Since no duration is given in Chapter 93 for the manganese criterion, a duration of 30 days is used based on the water quality criteria duration for Threshold Human Health (THH) criteria given in Section III.C.3.a., Table 1 on Page 10 of DEP's Water Quality Toxics Management Strategy. The 30-day duration for THH criteria coincides with the 30-day duration of an AML, which is why the manganese criterion is set equal to the AML for a "permitting at criteria" scenario. Because the manganese criterion is interpreted as having chronic exposure, the manganese MDL and IMAX may be made less stringent according to procedures established in Section III.C.2.h. of the Water Quality Toxics Management Strategy (AML multipliers of 2.0 and 2.5 for the MDL and IMAX respectively). Accordingly, TMDL manganese limits are proposed for Outfall 001.

Table 4: Kiskiminetas-Conemaugh River Watersheds TMDL Limits

Parameter	TMDL Limits (mg/L)	
	Average Monthly	Daily Maximum
Aluminum, total	0.75	0.75
Iron, total	1.5	3.0
Manganese, total	1.0	2.0

In this case, aluminum, iron and manganese limits were imposed in order to ensure compliance with the TMDL.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l) and are displayed in Table 5 below.

Table 5. Current Permit Effluent Limitations

Parameters	Average Monthly)	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/quarter	Measured
Oil and Grease (mg/L)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Total PCBs (mg/L)	XXX	XXX	XXX	6.3×10^{-5}	1.24×10^{-4}	XXX	2/month	Grab
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	2/quarter	Grab

Proposed Final Effluent Limitations

The proposed Final Permit effluent limitations are displayed below in Table 6. The permittee requested that the Oil and Grease monitoring be removed from the permit because the DMRs have shown that the discharge has been non-detect at the Department's QLs for the past 5 years. However, the DMRs have indicated that Oil and Grease has been detected Twice in the past two years; therefore, the monitor and report requirement for Oil and Grease will remain in the permit. The permittee also requested that the monitoring frequency of PCBs be reduced. Given that PCBs are the primary pollutants of concern for this facility and in consideration of the hazardous effects associated with PCBs and the human health basis for the effluent limits, DEP considers it to be reasonable to maintain a monthly monitoring schedule to confirm that the treatment system is operated properly and that PCBs are removed. Flow monitoring will be increased to 2/month because the frequency of flow monitoring is set equal to (or more frequent than) the most frequently monitored parameter. Because the limitations for Total Iron, Total Manganese, and Total Aluminum are new WQBELs to the permit, the permit will include a Schedule of Compliance, in accordance with 25 Pa. Code § 92a.51(a) of DEP's regulations, which grants the permittee three years to come into compliance with the WQBELs. Because the WQBELs will not be effective upon permit issuance, the permit will be tiered to have interim and final monitoring requirements and effluent limitations. For the first three years, Total Iron, Total Manganese and Total Aluminum will have monitor and report requirements. After three years, the final WQBELs will take effect. A Part C condition will be included in the Draft NPDES Permit outlining a compliance schedule for these parameters.

Table 6. Proposed Final Permit Effluent Limitations

Parameters	Average Monthly	Daily Maximum	Instantaneous Minimum	Average Monthly	Daily Maximum	Instantaneous Maximum	Measurement Frequency	Sample Type
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	2/month	Measured
Oil and Grease (mg/L)	XXX	XXX	XXX	Report	Report	XXX	2/month	Grab
Aluminum, total (mg/L)	XXX	XXX	XXX	0.75	0.75	XXX	2/month	Grab
Iron, total (mg/L)	XXX	XXX	XXX	1.5	3.0	XXX	2/month	Grab
Manganese, total (mg/L)	XXX	XXX	XXX	1.0	2.0	XXX	2/month	Grab
Total PCBs (mg/L)	XXX	XXX	XXX	6.3×10^{-5}	1.24×10^{-4}	XXX	2/month	Grab
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/quarter	Grab

The WQBELs for Total PCBs is more stringent that the Department's quantitation limits. For the purpose of compliance, a Part C Condition will be included in the permit stating that a statistical value report on the DMR that is less than the QLs (I.E. non-detect) will be considered to be compliant. Total PCBs is the summation of seven (7) aroclor PCBs. The quantitation limit for the PCB aroclors is 0.25 ug/L. Each of the seven (7) aroclor PCBs are required to be <0.25 ug/L yielding a Total PCBs concentration of <1.75 ug/L, as summarized in Table 7 below.

Table 7: PCB Quantitation Limitation for Compliance

Parameter Name	Quantitation Limit (µg/L)
PCB-1242	<0.25
PCB-1254	<0.25
PCB-1221	<0.25
PCB-1232	<0.25
PCB-1248	<0.25
PCB-1260	<0.25
PCB-1016	<0.25
Total PCBs	**<1.75**

Development of Effluent Limitations

IMP No. 101 **Design Flow (MGD)**
Latitude 40º 25' 51" **Longitude** -79º 5' 5"
Wastewater Description: Hydrostatic Test Water

Technology-Based Limitations

The site discharges hydrostatic test water, therefore, at a minimum that site is subject to the requirement from the PAG-10 General Permit. The concentration limits for hydrostatic test water from the general permit are shown in Table 8.

Table 8. Technology based effluent limits for hydrostatic test water.

Parameter	Minimum	Average Monthly	Instantaneous Maximum
Flow (GPM)		Report	
Duration (hours)		Report	
Total Volume Discharged (Gallons)		Report Total Monthly	
Dissolved Oxygen (mg/L)	5.0		
pH (standard units)	6.0		9.0
Total Residual Chlorine (TRC) (mg/L)		Report	0.05
Total Suspended Solids (TSS) (mg/L)		30	60
Oil and Grease (mg/L)		15	30
Dissolved Iron (mg/L)			7.0
Benzene (mg/L)			0.0025
BTEX (mg/L)			0.25
Total PCBs (µg/L)		Report	Report

Water Quality-Based Limitations

A water quality analysis was not performed to calculate water quality based effluent limitations as the discharge water is hydrostatic test water.

Conclusions and Recommendations

The effluent limits and sample frequencies for the discharge of hydrostatic test water are shown in Table 9 below:

Table 9. Technology based effluent limits for hydrostatic test water.

Parameter	Effluent Limitations			Monitoring Requirements	
	Minimum	Average Monthly	Instantaneous Maximum	Minimum Measurement Frequency (1),(2)	Sample Type
Flow (GPM) (3)	XXX	Report	XXX	1/discharge	Measured
Duration of Discharge (Hours) (3)	XXX	Report	XXX	1/discharge	Measured
Total Volume Discharged (Gallons) (3)	XXX	Report Total Monthly	XXX	1/month	Calculated
Dissolved Oxygen (mg/L)	5.0	XXX	XXX	2/discharge	Grab
pH (S.U.)	6.0	XXX	9.0	2/discharge	Grab
Total Residual Chlorine (TRC) (mg/L) (4)	XXX	Report	0.05	2/discharge	Grab
Total Suspended Solids (TSS) (mg/L)	XXX	30	60	1/discharge	Grab
Oil and Grease (mg/L)	XXX	15	30	1/discharge	Grab
Dissolved Iron (mg/L)	XXX	XXX	7.0	1/discharge	Grab
Benzene (mg/L) (5)	XXX	XXX	0.0025	1/discharge	Grab
BTEX (mg/L) (5), (6)	XXX	XXX	0.25	1/discharge	Grab
Total PCBs (µg/L) (7)	XXX	Report	Report	1/discharge	Grab

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Footnotes

(1) This is the minimum number of sampling events required. Permittees are encouraged, and it may be advantageous in demonstrating compliance, to perform more than the minimum number of sampling events.

(2) The permittee shall collect samples at the point of discharge (outfall) prior to the discharge entering the receiving waters. For measurement frequencies of 1/discharge, the permittee shall collect samples within the first 30 minutes of commencing a discharge. For measurement frequencies of 2/discharge, the permittee shall collect one sample at the start of a discharge and one sample at the end of a discharge.

(3) The permittee shall report the average monthly flow, in gallons per minute (GPM), for all discharges occurring during the month. The permittee shall measure the flow and the duration of the discharge (in hours) for each discharge and shall report this information to DEP in the Annual Report as specified in Part A III of this permit. The permittee shall report the total volume discharged each month, in gallons.

(4) The permittee shall comply with effluent limitations and monitoring requirements for Total Residual Chlorine (TRC) when a public water supply or other source of chlorinated water is used in hydrostatic testing.

(5) The permittee shall comply with effluent limitations and monitoring requirements for Benzene and BTEX for existing natural gas transmission lines (NGTLs), existing petroleum storage tanks (PSTs) and existing petroleum transmission lines (PTLs).

(6) The permittee shall calculate Total BTEX as the sum of concentrations for Benzene, Toluene, Ethylbenzene, and Total Xylenes determined through analysis of the same sample.

(7) Monitoring for Total PCBs is required only for existing Natural Gas Transmission Lines (NGTLs).

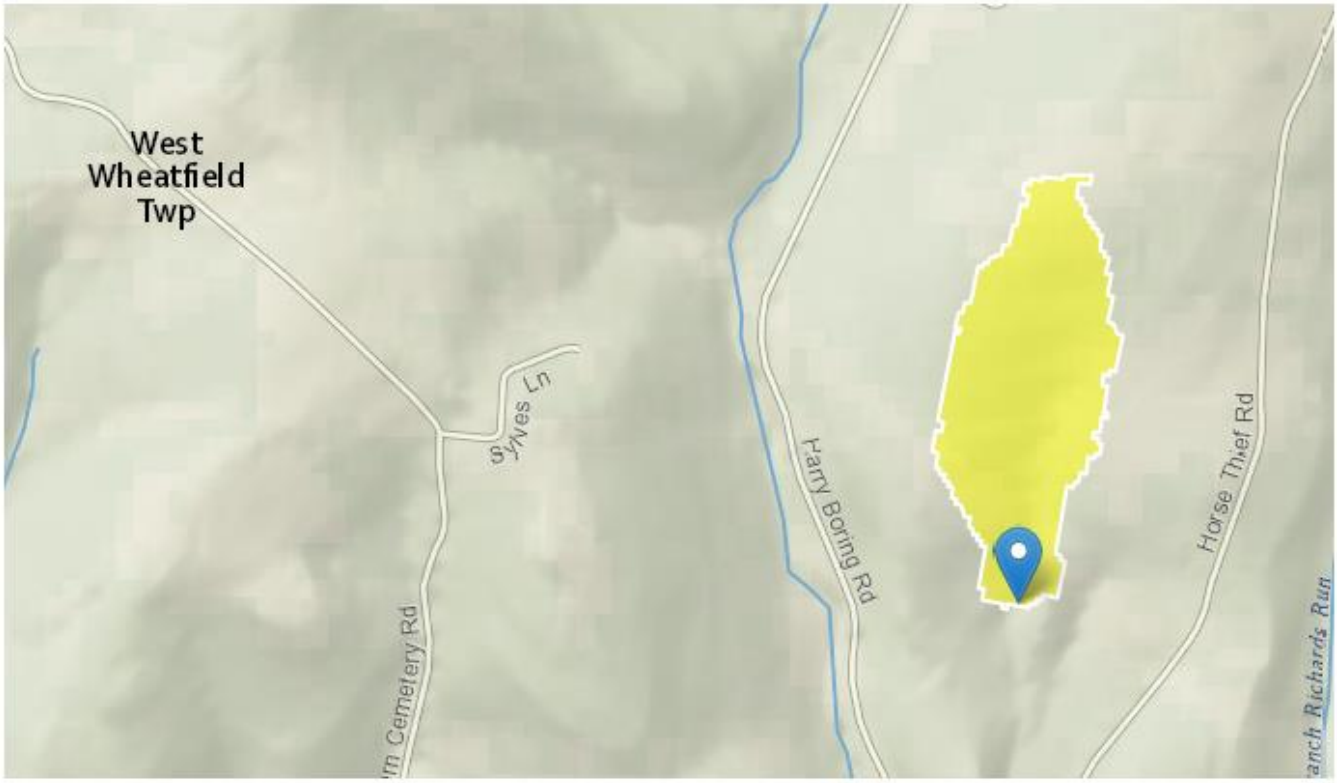
Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment **B**)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

Attachment A:

USGS StreamStats Report

StreamStats Report

Region ID: PA
Workspace ID: PA20210831141040185000
Clicked Point (Latitude, Longitude): 40.42771, -79.08637
Time: 2021-08-31 10:10:58 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0701	square miles
ELEV	Mean Basin Elevation	1708	feet
PRECIP	Mean Annual Precipitation	47	inches

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0701	square miles	2.33	1720
ELEV	Mean Basin Elevation	1708	feet	898	2700
PRECIP	Mean Annual Precipitation	47	inches	38.7	47.9

Low-Flow Statistics Disclaimers [Low Flow Region 3]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Region 3]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00881	ft^3/s
30 Day 2 Year Low Flow	0.0139	ft^3/s
7 Day 10 Year Low Flow	0.00338	ft^3/s
30 Day 10 Year Low Flow	0.00501	ft^3/s
90 Day 10 Year Low Flow	0.00762	ft^3/s

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Attachment B:

Outfall 001 Toxic Management Spreadsheet Results

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Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: Armagh Compressor Station NPDES Permit No.: PA0218146 Outfall No.: 001

Evaluation Type: Major Sewage / Industrial Waste Wastewater Description: PCB Contaminated Groundwater

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
0.0016	144	7						

				0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
PCB-1016	µg/L	<	0.5									
PCB-1221	µg/L	<	0.5									
PCB-1232	µg/L	<	0.5									
PCB-1242	µg/L	<	0.5									
PCB-1248	µg/L	<	0.5									
PCB-1254	µg/L	<	0.5									
PCB-1260	µg/L	<	0.5									
PCBs, Total	µg/L	<	0.5									

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Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Armagh Compressor Station, NPDES Permit No. PA0218146, Outfall 001

Instructions | Discharge | Stream

Receiving Surface Water Name: UNT to East Branch Richards Run

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	044938	0.38	1680	0.0701	0.001		Yes
End of Reach 1	044938	0.01	1580	0.1	0.001		Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi²)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.38	0.1	0.00338			2	1					100	7		
End of Reach 1	0.01	0.1	0.004			2	1								

Q_h

Location	RMI	LFY (cfs/mi²)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	0.38														
End of Reach 1	0.01														

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Armagh Compressor Station, NPDES Permit No. PA0218146, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | (●) All | ( ) Inputs | ( ) Results | ( ) Limits

☐ *Hydrodynamics*

☑ *Wasteload Allocations*

☑ *AFC* CCT (min): 0.058 PMF: 1 Analysis Hardness (mg/l): 118.6 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
PCBs, Total	0	0		0	N/A	N/A	N/A	

☑ *CFC* CCT (min): 0.058 PMF: 1 Analysis Hardness (mg/l): 118.6 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
PCBs, Total	0	0		0	0.014	0.014	0.033	

☑ *THH* CCT (min): 0.058 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
PCBs, Total	0	0		0	N/A	N/A	N/A	

☑ *CRL* CCT (min): 0.036 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
PCBs, Total	0	0		0	0.000064	0.00006	0.001	

☑ *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
PCB-1016	N/A	N/A	No WQS
PCB-1221	N/A	N/A	No WQS
PCB-1232	N/A	N/A	No WQS
PCB-1242	N/A	N/A	No WQS
PCB-1248	N/A	N/A	No WQS
PCB-1254	N/A	N/A	No WQS
PCB-1260	N/A	N/A	No WQS
PCBs, Total	N/A	N/A	Discharge Conc < TQL