pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0013021**
Facility Type	**Storm Water**	APS ID	**1092926**
Major / Minor	**Minor**	Authorization ID	**1447530**

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

Applicant and Facility Information

Applicant Name	**PQ, LLC**	Facility Name	**PQ Chester Plant**
Applicant Address	1201 W. Front Street	Facility Address	1201 W. Front Street
	Chester, PA 19013-3436		Chester, PA 19013-3436
Applicant Contact	Joseph Lala	Facility Contact	Joseph Lala
Applicant Phone	(484) 447-3933	Facility Phone	(610) 447-3933
Client ID	134318	Site ID	236490
SIC Code	2819	Municipality	Chester City
SIC Description	Manufacturing - Industrial Inorganic Chemicals	County	Delaware
Date Application Received	June 2, 2023	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Permit Renewal		

Summary of Review

Applicant requests approval for renewal of an NPDES permit to discharge stormwater from their Chester Plant to Delaware River Estuary, Zone 4.

PQ Chester Plant is a manufacturing facility which produces sodium silicate, in liquid and solid form, from soda ash and sand. Lithium silicate is also manufactured at the facility by combining lithium hydroxide, silica gel, and water in a process vessel and mixing. There were no operational changes to the facility since the last permit renewal.

No comments received from Operations Section. No violations noted in the 2022 DEP inspection report.

There are four Outfalls 001, 004, 005 and 007 at the site.

Outfall 001 drains the area that consists mostly of driveways and other low-potential areas.

Outfalls 004 and 005 drain runoff from roofs, driveways and material storage areas.

Outfall 007 located in the front of the plant (in the vicinity of several large product tanks) has a valve which is always in the closed position as a precaution and is only opened on rare occasions when the area floods and work is required in the area.

A site compliance evaluation is conducted semiannually. Areas contributing stormwater discharges associated with industrial activity will be inspected for evidence of pollutants entering (potential for pollutants to enter) the drainage system. The plant performs preventive maintenance on a routine schedule. Preventive maintenance includes inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	October 6, 2023
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	10/7/2023

Summary of Review

The existing permit has a Monitoring Point 301, inside Building No. 1, previously was receiving the evaporative losses from potassium silicate production line. MP 301 has been taken out of service as of July 1, 2012 and is expected to remain out of use. The facility stopped manufacturing this product at this facility. MP 301 is eliminated from the draft permit.

With the elimination of MP301, this NPDES permit is changed into an Individual Industrial Stormwater Permit and the authorization type is changed accordingly.

Review of the eDMRs show no concerns. Existing monitoring requirements for stormwater parameters, pH, COD, TSS, Nitrate+Nitrite as N, Total Phosphorus, Total Lead, Total Zinc, Total Iron and Total Aluminum are included in the draft permit for Outfalls 001, 004 and 007. Total Nitrogen is also added to be consistent with Appendix F of the General Stormwater Permit which is applicable to this type of facilities. Similar to the existing permit, Outfall 005 is only required to be monitored for PCBs.

According to the permit requirement facility shall collect two samples annually during a wet weather flow from Outfalls 001, 004, 005 and 007. We have received the facility's PCB PMP dated August 8, 2023 detailing the activities for the last year. The report shows a PCB loading of 0.5 mg/day in June 2022 and 1.3 mg/day in November 2022. These results show a reduction in PCB loading from previous year. Existing PCB PMP and Monitoring requirement is recommended to continue in the draft permit.

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.

Act 14 Notifications:

Chester City - April 13, 2023
Delaware County - April 13, 2023

Permit Conditions:

A. Stormwater Outfalls
B. Best Management Practices
C. Stormwater Monitoring
D. Routine Inspections
E. PPC Plan
F. Acquire Necessary Property Rights
G. Proper Sludge Disposal
H. PCB/PMP Condition

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0
Latitude	39º 49' 48.40"	Longitude	-75º 22' 9.97"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	stormwater		
Receiving Waters	Delaware River	Stream Code	00002
NHD Com ID	25591393	RMI	81.8
Watershed No.	3-G	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	PCB		
Source(s) of Impairment	Source Unknown		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	0
Latitude	39º 49' 54.07"	Longitude	-75º 22' 0.58"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River	Stream Code	00002
NHD Com ID	25591395	RMI	81.8
Watershed No.	3-G	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	PCB		
Source(s) of Impairment	Source Unknown		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	0
Latitude	39º 49' 48.40"	Longitude	-75º 22' 9.97"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River	Stream Code	00002
NHD Com ID	25591393	RMI	81.8
Watershed No.	3-G	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	PCB		
Source(s) of Impairment	Source Unknown		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Discharge, Receiving Waters and Water Supply Information

Outfall No.	007	Design Flow (MGD)	0
Latitude	39º 49' 53.28"	Longitude	-75º 22' 1.88"
Quad Name	Bridgeport	Quad Code	2043
Wastewater Description:	Stormwater		
Receiving Waters	Delaware River	Stream Code	00002
NHD Com ID	25591395	RMI	81.8
Watershed No.	3-G	Chapter 93 Class.	WWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	PCB		
Source(s) of Impairment	Source Unknown		
TMDL Status	Final	Name	Delaware River Estuary PCB TMDLs

Compliance History

DMR Data for Outfall 001 (from August 1, 2022 to July 31, 2023)

Parameter	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22
pH (S.U.) Daily Maximum		8.09						8.07				
COD (mg/L) Daily Maximum		17						< 15				
TSS (mg/L) Daily Maximum		21						10				
Nitrate-Nitrite (mg/L) Daily Maximum		1.52						2.28				
Total Phosphorus (mg/L) Daily Maximum		0.15						0.28				
Total Aluminum (mg/L) Daily Maximum		0.23						0.18				
Total Iron (mg/L) Daily Maximum		0.28						0.42				
Total Lead (mg/L) Daily Maximum		0.0010						0.0023				
Total Zinc (mg/L) Daily Maximum		0.0064						0.0062				
PCBs (Wet Weather) (pg/L) Daily Maximum		7290						22800				

DMR Data for Outfall 004 (from August 1, 2022 to July 31, 2023)

Parameter	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22
pH (S.U.) Daily Maximum		8.14						7.98				
COD (mg/L) Daily Maximum		17						< 15				
TSS (mg/L) Daily Maximum		15						12				
Nitrate-Nitrite (mg/L) Daily Maximum		1.49						1.89				

Total Phosphorus (mg/L) Daily Maximum		0.15						0.6				
Total Aluminum (mg/L) Daily Maximum		0.12						0.16				
Total Iron (mg/L) Daily Maximum		0.19						0.51				
Total Lead (mg/L) Daily Maximum		< 0.0010						0.0016				
Total Zinc (mg/L) Daily Maximum		0.0077						0.0074				
PCBs (Wet Weather) (pg/L) Daily Maximum		3180						14700				

DMR Data for Outfall 005 (from August 1, 2022 to July 31, 2023)

Parameter	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22
PCBs (Wet Weather) (pg/L) Daily Maximum		2710						14300				

DMR Data for Outfall 007 (from August 1, 2022 to July 31, 2023)

Parameter	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22
pH (S.U.) Daily Maximum		7.86										
COD (mg/L) Daily Maximum		< 15										
TSS (mg/L) Daily Maximum		16										
Nitrate-Nitrite (mg/L) Daily Maximum		1.5										
Total Phosphorus (mg/L) Daily Maximum		0.15										
Total Aluminum (mg/L) Daily Maximum		0.13										
Total Iron (mg/L) Daily Maximum		0.17										
Total Lead (mg/L) Daily Maximum		< 0.0010										

Total Zinc (mg/L) Daily Maximum		0.0076										
PCBs (Wet Weather) (pg/L) Daily Maximum		15300										

Proposed Effluent Limitations and Monitoring Requirements

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
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Outfall 004, 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
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Outfall 005, 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		
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Outfall 007, 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
COD	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Lead	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
PCBs (Wet Weather) (pg/L)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab