pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0053651**
Facility Type	**Industrial**	APS ID	**1029489**
Major / Minor	**Minor**	Authorization ID	**1337965**

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

Applicant and Facility Information

Applicant Name	**Johnson Matthey Inc.**	Facility Name	**Johnson Matthey GWCU**
Applicant Address	1401 King Road	Facility Address	1401 King Road
	West Chester, PA 19380-1467		West Chester, PA 19380-1467
Applicant Contact	David Campbell	Facility Contact	David Campbell
Applicant Phone	(610) 648-8091	Facility Phone	(610) 648-8091
Client ID	80042	Site ID	454499
SIC Code	3356	Municipality	West Whiteland Township
SIC Description	Manufacturing - Nonferrous Rolling and Drawing	County	Chester
Date Application Received	December 22, 2020	EPA Waived?	No
Date Application Accepted		If No, Reason	Discharge to Christina TMDL waters

Purpose of Application: Permit Renewal.

Summary of Review

The applicant requests renewal of an NPDES permit to discharge treated groundwater from Johnson Matthey GWCU and stormwater from the facility area.

The on-site groundwater remediation system is a pump and treat system designed to treat low concentrations of volatile organic compounds. Two recovery wells are connected to a treatment system consisting of an air stripper. Both wells are fitted with pumps that draw down water at a rate of less than 5 gallons per minute. When groundwater recharges either of the two wells, the water is pumped out of the well and through the treatment system before being discharged to Outfall 001.

This treatment system has been inactive since May 5, 2020 and there is no discharge through Outfall 001. It is anticipated that permittee will be seeking approval to eliminate this groundwater discharge from the permit through a permit amendment sometime in 2021 after the site completes its Act 2 closure.

This discharge is listed under Christina River Basin Low Flow and High Flow TMDLs. Since the facility already stopped discharging groundwater, existing monitoring requirements for Low Flow Parameters, CBOD5, NH3-N, TN, TP and DO and High Flow Parameters, TSS and Fecal Coliform are recommended to continue for Outfall 001. There is no reasonable potential to exceed the TMDL WLAs for CBOD5, NH3-N, TN, TP, DO, TSS, and Fecal Coliform.

A review of the edmr shows the discharge is in compliance with the effluent limitations in the existing permit. The proposed limits are similar to the existing limits. A limit of 0.01 mg/l (previously calculated based on Water Quality) is for Trichloroethylene (TCE) in the current permit. Reported discharge concentrations (before May 2020) of TCE were consistently below TQL of 0.0005 mg/l. A pH limit of 6.0 to 9.0 (chapter 95) is also existing.

There are four stormwater outfalls at the site: 002, 003, 004 and 005.

Approve	Deny	Signatures	Date
X		*Sara Abraham* Sara Reji Abraham, E.I.T. / Project Manager	February 2, 2021
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	020/02/2021

Summary of Review

Outfall 002 discharges from storage areas, building roofs and parking lots.

Outfall 003 discharges from a stormwater retention basin which receives runoff from main parking area on the western portion of the property. Activities taking place in this drainage area include parking, roof runoff and placement of separate, covered recyclable and non-hazardous solid waste dumpsters.

Outfall 004 discharges from the secondary parking area also on the western portion of the property but at a lower elevation than the main parking area. No activities other than parking take place in this drainage area.

Outfall 005 discharges from the paved surface on the eastern portion of the property. Activities taking place in this drainage area include parking and placement of an uncovered iron scrap recycling dumpster, as well as a non-hazardous solid waste dumpster.

Monitoring for the existing stormwater parameters, Oil and Grease, BOD5, COD, TSS, Total Nitrogen, Total Phosphorus and pH are recommended to continue for all stormwater outfalls. These parameters are consistent with the IW application Stormwater module. Also, the existing Dissolved Iron monitoring will be continued. All outfalls discharging into Valley Creek.

Monitoring frequency is changed to semi-annual in consistent with the PAG03 General Permit for Discharges of Stormwater Associated with Industrial Activity.

The groundwater monitoring condition in the existing permit is also continued in the new permit. This condition will be eliminated once the groundwater discharge is eliminated from the permit.

Act 14 Notifications:

West Whiteland Township - December 21, 2020

Chester County - December 21, 2020

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.

Permit Conditions:

A. Acquire Necessary Property Rights
B. Proper Sludge Disposal
C. WQM Permit Requirement
D. BAT/ELG Reopener
E. Small Stream Discharge
F. TMDL/WLA Analysis
G. Groundwater Monitoring
H. Stripper Tower Cleaning Water Discharge
I. Stormwater Outfall Requirements

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0134
Latitude	40º 1' 24.74"	Longitude	-75º 34' 58.30"
Quad Name	Malvern	Quad Code	1841
Wastewater Description:	Groundwater Cleanup Discharge		

Receiving Waters	Valley Creek (CWF, MF)	Stream Code	00254
NHD Com ID	26093736	RMI	9.3
Watershed No.	3-H	Chapter 93 Class.	CWF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	flow regime modification, siltation		
Source(s) of Impairment	urban runoff/storm sewers		
TMDL Status	Final	Name	Christina River Basin

Compliance History

DMR Data for Outfall 001 (from December 1, 2019 to November 30, 2020)

Parameter	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19
Flow (MGD) Average Monthly							E	0.00082	0.000003	0.000381	0.000390	0.000402
pH (S.U.) Instantaneous Minimum							E	7.53	6.73	6.40	6.22	7.11
pH (S.U.) Instantaneous Maximum							E	7.53	6.73	6.40	6.22	7.11
DO (mg/L) Instantaneous Minimum						10.1			10.7			10.4
CBOD5 (mg/L) Daily Maximum						< 2.0			< 2.0			< 2.0
TSS (mg/L) Daily Maximum						< 5			< 5			< 5
Fecal Coliform (CFU/100 ml) Daily Maximum						< 1			< 1			< 1
Total Nitrogen (mg/L) Daily Maximum						< 5.80			< 5.20			< 5.60
Ammonia (mg/L) Daily Maximum						0.251			< 0.100			< 0.100
Total Phosphorus (mg/L) Daily Maximum						< 0.10			< 0.10			< 0.10
Trichloroethylene (mg/L) Average Monthly							E	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethylene (mg/L) Influent Average Monthly							E	< 0.0005	0.0005	< 0.0005	< 0.0005	< 0.0005
Trichloroethylene (mg/L) Daily Maximum							E	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005

DMR Data for Outfall 002 (from December 1, 2019 to November 30, 2020)

Parameter	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19
pH (S.U.) Daily Maximum												6.50
BOD5 (mg/L) Daily Maximum												46.0
COD (mg/L) Daily Maximum												55
TSS (mg/L) Daily Maximum												< 5.0
Oil and Grease (mg/L) Daily Maximum												< 3.7
Total Nitrogen (mg/L) Daily Maximum												1.76
Total Phosphorus (mg/L) Daily Maximum												< 0.10
Dissolved Iron (mg/L) Daily Maximum												< 0.060

DMR Data for Outfall 003 (from December 1, 2019 to November 30, 2020)

Parameter	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19
pH (S.U.) Daily Maximum												6.50
BOD5 (mg/L) Daily Maximum												39.4
COD (mg/L) Daily Maximum												57
TSS (mg/L) Daily Maximum												24
Oil and Grease (mg/L) Daily Maximum												< 3.7
Total Nitrogen (mg/L) Daily Maximum												3.70
Total Phosphorus (mg/L) Daily Maximum												0.38
Dissolved Iron (mg/L) Daily Maximum												< 0.060

DMR Data for Outfall 004 (from December 1, 2019 to November 30, 2020)

Parameter	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19
pH (S.U.) Daily Maximum												7.00
BOD5 (mg/L) Daily Maximum												26.3
COD (mg/L) Daily Maximum												< 15
TSS (mg/L) Daily Maximum												< 5
Oil and Grease (mg/L) Daily Maximum												< 4.0
Total Nitrogen (mg/L) Daily Maximum												1.62
Total Phosphorus (mg/L) Daily Maximum												< 0.10
Dissolved Iron (mg/L) Daily Maximum												< 0.060

DMR Data for Outfall 005 (from December 1, 2019 to November 30, 2020)

Parameter	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19
pH (S.U.) Daily Maximum												7.00
BOD5 (mg/L) Daily Maximum												36.0
COD (mg/L) Daily Maximum												25
TSS (mg/L) Daily Maximum												13
Oil and Grease (mg/L) Daily Maximum												< 3.8
Total Nitrogen (mg/L) Daily Maximum												1.72
Total Phosphorus (mg/L) Daily Maximum												< 0.10
Dissolved Iron (mg/L) Daily Maximum												< 0.060

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		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/quarter	Grab
CBOD5	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Ammonia	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Trichloroethylene Industrial Influent	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Trichloroethylene	XXX	XXX	XXX	0.01	0.02	0.025	1/month	Grab

Proposed Effluent Limitations and Monitoring Requirements

Outfall 002, 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
BOD5	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
Oil and Grease	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
Dissolved Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Outfall 003, 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
BOD5	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
Oil and Grease	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
Dissolved Iron	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
BOD5	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
Oil and Grease	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
Dissolved Iron	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	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
BOD5	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
Oil and Grease	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
Dissolved Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab