pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PAS208302**
Facility Type	**Storm Water**	APS ID	**981015**
Major / Minor	**Minor**	Authorization ID	**1252107**

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

Applicant and Facility Information

Applicant Name	**Keystone Powdered Metal Co.**	Facility Name	**Keystone Powdered Metal Lewis Run**
Applicant Address	251 State Street	Facility Address	PO Box 424 8 Hanley Drive
	Saint Marys, PA 15857-1658		Lewis Run, PA 16738-0424
Applicant Contact	Andrew Yetzer	Facility Contact	Wesley Horton
Applicant Phone (office)	(814) 781-4264	Facility Contact Phone	(814) 368-5603
Applicant Phone (Cell)	(814) 594-4852	Main Facility Phone	(814) 368-5320
Applicant Email	ayetzer@keystonepm.com	Facility Contact Email	whorton@keystonepm.com
Client ID	84518	Site ID	481792
SIC Code	3496	SIC Code	3499
SIC Description	Mfg - Misc Fabricated Wire Products	SIC Description	Fabricated Metals
Municipality	Lewis Run Borough		
Date Application Received	October 29, 2018	EPA Waived?	Yes
Date Application Accepted	November 20, 2018	If No, Reason	---
Purpose of Application	NPDES Permit Renewal		

Summary of Review

The permit is for storm water and emergency non-contact cooling water discharges in a high-quality cold-water fishery. The facility predates the high-quality cold water fishery designations. No changes are proposed that would impact the anti-degradation status of this facility.

No violations are on file.

Robert Bauer has retired. Andrew Yetzer has assumed his duties and is the main contact. Wesley Horton is the new facility contact.

The existing permit regulates Outfalls 002 and 003. The requirements were established with the original permit issuance. Outfall 002 is currently conditioned for a 0.5-MGD emergency non-contact cooling water discharge with flow, pH, TSS and Oil & Grease monitoring when cooling water is discharged. Sampling methods and storm water controls should be improved. This was discussed with Andrew Yetzer in September 2021 and he confirmed that there is no way to currently collect a discreet NCCW sample and there is no location to install a sampling port with the current configuration. The Department may review this at the next facility inspection to determine if this can be addressed for future permit renewals. With no aquatic life protection needed prior to the East Branch, no modelling is on file and modelling at the East Branch should not be necessary. The toxics management spreadsheet identifies copper and iron for possible water-quality based limitations at the East Branch.

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*,

Approve	Deny	Signatures	Date
X		William H. Mentzer William H. Mentzer, P.E. Environmental Engineering Specialist	October 6, 2021
X		Justin C. Dickey Justin C. Dickey, P.E. Environmental Engineer Manager	October 6, 2021

Summary of Review
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
Latitude DP	41º 52' 29.80"	Longitude DP	-78º 39' 16.46"
Latitude	41º 52' 26.27"	Longitude	-78º 39' 14.46"
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369897	RMI	0.08
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	0
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13, Basin drainage 1.5748 sq miles; 0.13-cfs, 0.09-MGD, Perennial stream conditions at East Branch Tunungwant Creek.		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.10

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	0.5
Latitude DP	41º 52' 31.00"	Longitude DP	-78º 39' 16.89"
Latitude	41º 52' 24.25"	Longitude	--78º 39' 23.86
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Noncontact Cooling Water (NCCW), Stormwater		

Receiving Waters	East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369901	RMI	0.100
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.12

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	0
Latitude DP	41º 52' 33.20"	Longitude DP	-78º 39' 17.77"
Latitude	41º 52' 26.27"	Longitude	--78º 39' 14.16"
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369897	RMI	0.13
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.15

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	0
Latitude DP	41º 52' 36.00"	Longitude DP	-78º 39' 18.45"
Latitude	41º 52' 26.27"	Longitude	--78º 39' 14.46"
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369897	RMI	0.18
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.15

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	0
Latitude DP	41º 52' 37.00"	Longitude DP	-78º 39' 20.00"
Latitude	41º 52' 26.27"	Longitude	--78º 39' 14.46"
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369897	RMI	0.19
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.21

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	006	Design Flow (MGD)	0
Latitude DP	41º 52' 39.00"	Longitude DP	-78º 39' 20.00"
Latitude	41º 52' 26.27"	Longitude	--78º 39' 14.46"
Quad Name	Lewis Run	Quad Code	0416
Wastewater Description:	Stormwater		
Receiving Waters	Unnamed Tributary to East Branch Tunungwant Creek (HQ-CWF)	Stream Code	unknown
NHD Com ID	112369897	RMI	0.26
Drainage Area	0.1	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	0	Q_{7-10} Basis	Dry Stream
Elevation (ft)	1537.39	Slope (ft/ft)	0.02
Watershed No.	16-C	Chapter 93 Class.	HQ-CWF
Existing Use	**statewide**	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Comments	Confluence at 57981 RMI 0.13		
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	New York State border		
PWS Waters	Tunungwant Creek	Flow at Intake (cfs)	N/A
PWS RMI	10.02	Distance from Outfall (mi)	10.28

Changes Since Last Permit Issuance: none

Other Comments: Because of the HQ-CWF stream designation water supply criteria was evaluated at the discharge.

SAMPLE RESULTS SUMARY

	001	002	003	004	005	006		QL	ABACT	T3
Oil & Grease	< 5.0 1	< 5.0 1	6.41 1	5.19 1	0		0	5.0	NA	
BOD5	4.3 1	8.15 1	144 1	< 6.0 1	0		0	2.0		
CBOD5									10.0	0.91
COD	35.2 1	119 1	235 1	< 10 1	0		0	10.0		
TSS	56 1	364 1	688 1	3.30 1	0		0	25.0	10.0	9.0
Nitrogen	< 2 1	3.43 1	7.2 1	< 2 1	0		0	2.0		
Nitrite-Nitrate N										0.51
Ammonia Summer									1.5	0.029
Ammonia Winter									4.5	
Phosphorus	0.14 1	0.766 1	1.0 1	< 0.1 1	0		0	0.1		0.024
pH	7.4 1	7.52 1	7.27 1	7.14 1	0		0			
Copper	0.02071	0.16561	0.118 1	< 0.005 1	0		0	0.005		0.0046
Total Iron	0.61 1	0.678 1	10.9 1	0.168 1	0		0	0.020		0.230
Dissolved Iron			< 0.2 1		0		0			
Molybdenum	< 0.02 1	< 0.02 1	< 0.02 1	< 0.02 1	0		0	0.020		
Nickel	< 0.02 1	< 0.02 1	0.211 1	< 0.02 1	0		0	0.020		
Zinc	0.01541	0.01211	0.023 1	0.0701 1	0		0	0.01		0.0087
Drainage Sq-Ft	77,500	33,200	51,000	125,000	126,000	64,800				
	impervious	impervious	impervious	83% pervious						
	groundwater	groundwater	groundwater	groundwater	groundwater					
	High St	NCCW		field	High St/field	field				
	parking	roofs	roofs	roofs/parking						
Storm Length Min	480	480	489	480						
Rainfall inches	0,8	0.8	0.8	0.8						
Elapsed Stm Hrs	144	144	144	144						
Discharge galLOS	34809	14900	28889	13300						

Outfall 004 seems relatively clean except for zinc. Outfalls 001 through 003 show some mix of operation and groundwater contamination. Housekeeping should be improved and sampling methods improved to identify contamination sources.

Compliance History

DMR Data for Outfall 002 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
TSS (mg/L) Other Stormwater Instantaneous Maximum			6.50						9.60			
Oil and Grease (mg/L) Other Stormwater Instantaneous Maximum			< 5.25						< 5.00			

DMR Data for Outfall 003 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
TSS (mg/L) Instantaneous Maximum			7.00						6.80			
Oil and Grease (mg/L) Instantaneous Maximum			< 5.15						< 5.00			
Dissolved Iron (mg/L) Instantaneous Maximum			< 0.200						< 0.200			

Maximum values are high and best management practices should be improved.

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.

STORMWATER MONITORING:

Outfall 001, Outfall 002, Outfall 003, Outfall 004, Outfall 005, and Outfall 006, 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
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	XXX	30	1/6 months	Grab
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Dissolved Iron	XXX	XXX	XXX	XXX	XXX	7.0	1/6 months	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Zinc	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfalls 001 to 006 prior to mixing with any other wastes. Dissolved iron is currently not monitored at Outfall 002 but will be added with this renewal to be consistent with stormwater monitoring at the other stormwater outfalls.

Other Comments: Oil and Grease and Dissolved Iron limitations are carried over from previous permit cycles and are based on 25 Pa. Code §§ 95.2 (2.ii), (4). Monitoring for pH, TSS, Nitrate-Nitrite, Total Aluminum, Total Iron, and Total Zinc is based on the current Appendix U of the PAG-03 NPDES General Permit for Stormwater Discharges Associated with Industrial Activity. A Total Suspended Solids (TSS) benchmark value of 100 mg/l will be established through the Part C condition for requirements applicable to stormwater outfalls, consistent with the current PAG-03 requirements. Additionally, the condition established Best Management Practices (BMPs) relative to Appendix U (Fabricated Metal Products) facilities.

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.

NON-CONTACT COOLING WATER MONITORING

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		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Daily when Discharging	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/discharge	Grab
TSS	XXX	XXX	XXX	30	60	60	1/discharge	Grab
Oil and Grease	XXX	XXX	XXX	15	30	30	1/discharge	Grab

Emergency Non-Contact Cooling Water Compliance Sampling Location: Outfall 002 prior to mixing with any other wastes

Other Comments: Only Outfall 002 has pH requirements.

The Toxics Management Spreadsheet was used to evaluate Outfall 002. The evaluation is based on a single semiannual analysis not the minimum recommended weekly monitoring thus the results and ignoring a long dry and intermittent stream reach to the East Branch Tunungwant Creek that should preclude its use to set limitations but could be used to verify stream degradation potential.

Outfall 005 and 006 should be monitored to provide stormwater reference points. Outfall 004 should be monitored to establish a facility stormwater reference point. Outfalls 001, 002 and 003 show BOD5, copper, iron and zinc degradation. As the NCCW discharge has not been reported, no effluent violations exist that would force an effluent study and improved treatment.

The implementation of the new PAG-03 stormwater requirements as a Part C condition should provide a means to further review and resolve any potential stormwater related issues.

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Toxics Management Spreadsheet
Version 1.0, July 2020

Instructions

Instructions | Discharge | Stream

If prompted by Excel after opening the DEP Toxics Management Spreadsheet, enable editing and macros. This spreadsheet consists of four hyperlink tabs: Instructions, Discharge, Stream, and Results. Each tab has a corresponding worksheet. In addition there is a Reference worksheet where water quality criteria and other data are stored for use in calculations and a Versions worksheet to show modifications to this spreadsheet over time.

Only those cells that are highlighted are available for data entry by the user:

Red asterisks (*) are shown where cells may not be blank in order to calculate effluent limitations.

Click on the button below to open detailed instructions on the use of the Toxics Management Spreadsheet:

OPEN INSTRUCTIONS

If you have questions concerning use of this spreadsheet, contact the Bureau of Clean Water at **RA-EPNPDES_Permits@pa.g**

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Toxics Management Spreadsheet
Version 1.0, July 2020

Model Results

Keystone Metals Lewis Run, NPDES Permit No. PAS208302, Outfall 002

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

☑ ***Hydrodynamics***

Q_{7-10}

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 (days)	Complete Mix Time (min)
0.13	0.20		0.20	0.774	0.00001	0.649	13.89	21.388	0.108	0.073	8.549
0	2.60		2.6								

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 (days)	Complete Mix Time (min)
0.13	1.86		1.86	0.774	0.00001	1.004	13.89	13.839	0.189	0.042	50.636
0	17.127		17.13								

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 8.549 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.35

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 Copper	0	0		0	13.459	14.0	17.7	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	468.236	469	593	Chem Translator of 0.998 applied
Total Zinc	0	0		0	117.180	120	152	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 8.549 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.35

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 Copper	0	0		0	8.956	9.33	11.8	Chem Translator of 0.96 applied
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	1,897	WQC = 30 day average; PMF = 1

Total Nickel	0	0		0	52.007	52.2	66.0	Chem Translator of 0.997 applied
Total Zinc	0	0		0	118.139	120	152	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 8.549 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 Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	300	300	379	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	610	610	771	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 50.636 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 Copper	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Zinc	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
Total Copper	0.049	0.077	11.8	18.4	29.5	µg/L	11.8	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Dissolved Iron	1.58	2.47	379	592	949	µg/L	379	THH	Discharge Conc ≥ 50% WQBEL (RP)
Total Iron	7.91	12.3	1,897	2,960	4,743	µg/L	1,897	CFC	Discharge Conc ≥ 50% WQBEL (RP)
Total Nickel	Report	Report	Report	Report	Report	µg/L	66.0	CFC	Discharge Conc > 10% WQBEL (no RP)
Total Zinc	Report	Report	Report	Report	Report	µg/L	120	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***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

Pollutant Name	Most Stringent Criterion (µg/L)	AFC WQC (µg/L)	CFC WQC (µg/L)	THH WQC (µg/L)	CRL WQC (µg/L)	Chem Trans - AFC Default	Chem Trans - CFC Default	Chem Trans - Site-Specific	Target QL (µg/L)	Conservative	PWS
1,1,1-Trichloroethane	610	3000	610						0.5		
1,1,2,2-Tetrachloroethane	0.17	1000	210		0.17				0.5		
1,1,2-Trichloroethane	0.59	3400	680		0.59				0.5		
1,1-Dichloroethane									0.5		
1,1-Dichloroethylene	33	7500	1500	33					0.5		
1,2,3-Trichloropropane	210			210					0.5		
1,2,4-Trichlorobenzene	26	130	26	35					0.5		
1,2,4-Trimethylbenzene	72			72					0.5		
1,2-Dichlorobenzene	160	820	160	420					0.5		
1,2-Dichloroethane	0.38	15000	3100		0.38				0.5		
1,2-Dichloropropane	2200	11000	2200						0.5		
1,2-Diphenylhydrazine	0.036	15	3		0.036				10		
1,2-cis-Dichloroethylene	12			12					0.5		
1,2-trans-Dichloroethylene	140	6800	1400	140					0.5		
1,3,5-Trimethylbenzene	72			72					0.5		
1,3-Dichlorobenzene	69	350	69	420					0.5		
1,3-Dichloropropylene	0.34	310	61		0.34				0.5		
1,4-Dichlorobenzene	150	730	150	420					0.5		
1,4-Dioxane									1		
1-Propanol	46000	230000	46000						100		
2,3,7,8-TCDD	0.00000000500				0.000000005				0.000005		
2,4,6-Trichlorophenol	1.4	460	91		1.4				10		
2,4-Dichlorophenol	77	1700	340	77					10		
2,4-Dimethylphenol	130	660	130	380					10		
2,4-Dinitrophenol	69	660	130	69					10		
2,4-Dinitrotoluene	0.05	1600	320		0.05				5		
2,6-Dinitrotoluene	0.05	990	200		0.05				5		
2-Butoxyethanol	700			700					2		
2-Chloroethyl Vinyl Ether	3500	18000	3500						5		
2-Chloronaphthalene	1000			1000					5		
2-Chlorophenol	81	560	110	81					10		
2-Hexanone	4300	21000	4300						2.5		
2-Nitrophenol	1600	8000	1600						10		
2-Propanol	89000	440000	89000						0.5		
3,3-Dichlorobenzidine	0.021				0.021				5		
3,4-Benzofluoranthene	0.0038				0.0038				2.5		
4,4-DDD	0.00031	1.1	0.001		0.00031				0.05		
4,4-DDE	0.00022	1.1	0.001		0.00022				0.05		
4,4-DDT	0.00022	1.1	0.001		0.00022				0.05		
4,6-Dinitro-o-Cresol	13	80	16	13					10		
4-Bromophenyl Phenyl Ether	54	270	54						5		
4-Chlorophenyl Phenyl Ether									5		
4-Nitrophenol	470	2300	470						10		
Acenaphthene	17	83	17	670					2.5		
Acenaphthylene									2.5		

Pollutant Name	Most Stringent Criterion (µg/L)	AFC WQC (µg/L)	CFC WQC (µg/L)	THH WQC (µg/L)	CRL WQC (µg/L)	Chem Trans - AFC Default	Chem Trans - CFC Default	Chem Trans - Site-Specific	Target QL (µg/L)	Conservative	PWS
Acetone	3500	450000	86000	3500					2.5		
Acrolein	3	3	3	6					2		
Acrylamide	0.07				0.07				0.1		
Acrylonitrile	0.051	650	130		0.051				5		
Aldrin	0.000049	3	0.1		0.000049				0.05		
alpha-BHC	0.0026				0.0026				0.05		
alpha-Endosulfan	0.056	0.22	0.056	62					0.05		
Anthracene	8300			8300					2.5		
Benzene	1.2	640	130		1.2				0.5		
Benzene Metadisulfonic Acid	1600000	2600000	1600000								
Benzene Monosulfonic Acid	1200000	2000000	1200000								
Benzidine	0.000086	300	59		0.000086				50		
Benzo(a)Anthracene	0.0038	0.5	0.1		0.0038				2.5		
Benzo(a)Pyrene	0.0038				0.0038				2.5		
Benzo(ghi)Perylene									2.5		
Benzo(k)Fluoranthene	0.0038				0.0038				2.5		
Benzyl Chloride	0.2				0.2				0.5		
beta-BHC	0.0091				0.0091				0.05		
beta-Endosulfan	0.056	0.22	0.056	62					0.05		
Bis(2-Chloroethoxy)Methane									5		
Bis(2-Chloroethyl)Ether	0.03	30000	6000		0.03				5		
Bis(2-Chloroisopropyl)Ether	1400			1400					5		
Bis(2-Ethylhexyl)Phthalate	1.2	4500	910		1.2				5		
Bromide									200	Y	
Bromoform	4.3	1800	370		4.3				0.5		
Butyl Benzyl Phthalate	35	140	35	150					5		
Carbon Tetrachloride	0.23	2800	560		0.23				0.5		
Chlordane	0.0008	2.4	0.0043		0.0008				1		
Chloride (PWS)	250000			250000					500	Y	Y
Chlorobenzene	130	1200	240	130					0.5		
Chlorodibromomethane	0.4				0.4				0.5		
Chloroethane									0.5		
Chloroform	5.7	1900	390		5.7				0.5		
Chrysene	0.0038				0.0038				2.5		
Color	75			75					5	Y	
Cyclohexylamine	1000			1000							
delta BHC									0.05		
Diazinon	0.17	0.17	0.17						0.0015		
Dibenzo(a,h)Anthrancene	0.0038				0.0038				2.5		
Dibromochloromethane									0.5		
Dibromomethane									0.5		
Dichlorobromomethane	0.55				0.55				0.5		
Dichlorodifluoromethane									0.5		
Dieldrin	0.000052	0.24	0.056		0.000052				0.05		
Diethyl Phthalate	800	4000	800	17000					5		

Pollutant Name	Most Stringent Criterion (µg/L)	AFC WQC (µg/L)	CFC WQC (µg/L)	THH WQC (µg/L)	CRL WQC (µg/L)	Chem Trans - AFC Default	Chem Trans - CFC Default	Chem Trans - Site-Specific	Target QL (µg/L)	Conservative	PWS
Dimethyl Phthalate	500	2500	500	270000					5		
Di-n-Butyl Phthalate	21	110	21	2000					5		
Di-n-Octyl Phthalate									5		
Dissolved Iron	300			300					20	Y	
Endosulfan Sulfate									0.05		
Endrin	0.036	0.086	0.036	0.059					0.05		
Endrin Aldehyde	0.29			0.29					0.05		
Ethylbenzene	530	2900	580	530					0.5		
Ethylene Glycol									1000		
Fluoranthene	40	200	40	130					2.5		
Fluorene	1100			1100					2.5		
Fluoride (PWS)	2000			2000					200	Y	Y
Formaldehyde	440	2200	440	700					21.5		
Free Available Cyanide	5.2	22	5.2	140					1		
gamma-BHC	0.098	0.95		0.098					0.05		
Gross Alpha									3		
Heptachlor	0.000079	0.52	0.0038		0.000079				0.05		
Heptachlor Epoxide	0.000039	0.5	0.0038		0.000039				0.05		
Hexachlorobenzene	0.00028				0.00028				5		
Hexachlorobutadiene	0.44	10	2		0.44				0.5		
Hexachlorocyclopentadiene	1	5	1	40					5		
Hexachloroethane	1.4	60	12		1.4				5		
Hexavalent Chromium	10.0	16.0	10.0			0.982	0.962		1	Y	
Indeno(1,2,3-cd)Pyrene	0.0038			0.0038					2.5		
Isophorone	35	10000	2100	35					5		
Methyl Bromide	47	550	110	47					0.5		
Methyl Chloride	5500	28000	5500						0.5		
Methyl Ethyl Ketone	21000	230000	32000	21000					2.5		
Methyl Isobutyl Ketone	5000	26000	5000						2.5		
Methylene Chloride	4.6	12000	2400		4.6				0.5		
Metolachlor	69			69					0.05		
MTBE									0.5		
Naphthalene	43	140	43						0.5		
Nitrite plus Nitrate as N (PWS)	10000			10000					40	Y	Y
Nitrobenzene	17	4000	810	17					5		
n-Nitrosodimethylamine	0.00069	17000	3400		0.00069				5		
n-Nitrosodi-n-Propylamine	0.005				0.005				5		
n-Nitrosodiphenylamine	3.3	300	59		3.3				5		
Nonylphenol	6.6	28	6.6						5		
Osmotic Pressure	50	50							5	Y	
PCB-1016									0.25		
PCB-1221									0.25		
PCB-1232									0.25		
PCB-1242									0.25		
PCB-1248									0.25		

Pollutant Name	Most Stringent Criterion (µg/L)	AFC WQC (µg/L)	CFC WQC (µg/L)	THH WQC (µg/L)	CRL WQC (µg/L)	Chem Trans - AFC Default	Chem Trans - CFC Default	Chem Trans - Site-Specific	Target QL (µg/L)	Conservative	PWS
PCB-1254									0.25		
PCB-1260									0.25		
PCBs, Total	0.000064		0.014		0.000064				1.75		
p-Chloro-m-Cresol	30	160	30						10		
p-Cresol	160	800	160						20		
p-Phenol Sulfonic Acid	1400000	3500000	1400000								
Parathion											
Pentachlorophenol	0.27	12.38	9.50		0.27				10		
Phenanthrene	1	5	1						2.5		
Phenol	10400			10400					10		
Pyrene	830			830					2.5		
Radium 226/228									1		
Resorcinol	2700	28000	7200	2700							
Sulfate (PWS)	250000			250000					1000	Y	Y
Tetrachloroethylene	0.69	700	140		0.69				0.5		
Toluene	330	1700	330	1300					0.5		
Total Aluminum	750	750							10	Y	
Total Antimony	5.6	1100	220	5.6					2	Y	
Total Arsenic	10	340	150	10		1.000	1.000		3	Y	
Total Barium	2400	21000	4100	2400					2	Y	
Total Beryllium									1	Y	
Total Beta									4		
Total Boron	1600	8100	1600	3100					200	Y	
Total Cadmium	0.25	2.01	0.25			0.944	0.909		0.2	Y	
Total Chromium									4	Y	
Total Chromium (III)	74	570	74			0.316	0.860		4	Y	
Total Cobalt	19	95	19						1	Y	
Total Copper	9.0	13.44	8.96			0.960	0.960		4	Y	
Total Cyanide									10		
Total Dinitrotoluene					0.05						
Total Dissolved Solids (PWS)	500000			500000					2000	Y	Y
Total Iron	1500		1500						20	Y	
Total Lead	2.5	65	2.5			0.791	0.791		1	Y	
Total Manganese	1000			1000					2	Y	
Total Mercury	0.05	1.40	0.77	0.05		0.850	0.850		0.2	Y	
Total Molybdenum									4	Y	
Total Nickel	52	468.2	52.0	610		0.998	0.997		4	Y	
Total Phenols (Phenolics) (PWS	5			5					5	Y	Y
Total Residual Chlorine	0.011	0.019	0.011						20		
Total Selenium	4.6		4.6			0.922	0.922		5	Y	
Total Silver	3.2	3.2				0.850			0.4	Y	
Total Strontium	4000.0			4000					10	Y	
Total Strontium (Gross) 90											
Total Thallium	0.24	65	13	0.24					2	Y	
Total Tungsten									1000	Y	

Pollutant Name	Most Stringent Criterion (µg/L)	AFC WQC (µg/L)	CFC WQC (µg/L)	THH WQC (µg/L)	CRL WQC (µg/L)	Chem Trans - AFC Default	Chem Trans - CFC Default	Chem Trans - Site-Specific	Target QL (µg/L)	Conservative	PWS
Total Uranium									2	Y	
Total Vanadium	100	510	100						13	Y	
Total Xylenes	210	1100	210	70000					1.5		
Total Zinc	117	117	118			0.978	0.986		5	Y	
Toxaphene	0.0002	0.73	0.0002	0.00028	0.00028				0.5		
Trichloroethylene	2.5	2300	450		2.5				0.5		
Trichlorofluoromethane									0.5		
Vinyl Chloride	0.025				0.025				0.5		
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Date	Version	Change(s)
7/1/2020	1.0	Original