

Application Type Renewal
Facility Type Industrial
Major / Minor Minor

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

Application No. PA0061697
APS ID 790664
Authorization ID 1350844

Applicant and Facility Information

Applicant Name	<u>Ri-Corp Development Inc.</u>	Facility Name	<u>John B Rich Memorial Power Station (Ri-Corp Development Inc.)</u>
Applicant Address	<u>81 Eleanor Avenue Gilbertown Power Co Frackville, PA 17931</u>	Facility Address	<u>John B Rich Memorial Power Station 81 Eleanor Avenue Frankville, PA 17931</u>
Applicant Contact	<u>Alexander Brush (570) 874-4456</u>	Facility Contact	<u>Alexander Brush</u>
Applicant Phone	<u>abrush@culm2energy.com</u>	Facility Phone	<u>(570) 874-4456</u>
Client ID	<u>298251</u>	Site ID	<u>452562</u>
SIC Code	<u>4911</u>	Municipality	<u>West Mahanoy Township</u>
SIC Description	<u>Trans. & Utilities - Electric Services</u>	County	<u>Schuylkill</u>
Date Application Received	<u>April 22, 2021, extension granted</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>April 22, 2021</u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES Renewal.</u>		

Summary of Review

The applicant is requesting the renewal of their NPDES Permit to discharge 0.31 MGD of non-contact cooling, blowdown and stormwater into Mahanoy Creek. Mahanoy Creek (WWF, MF) is located in State Water Plan watershed 6-B and is classified for Migratory Fishes and Warm Water Fishes, aquatic life, water supply and recreation. Mahanoy Creek is acid mine drainage affected and has a final TMDL. Per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than the designated use. The discharge is not expected to affect public water supplies.

This is an 80-megawatt power generating station owned by Ri-Corp. Development, Inc. DBA Gilberton Power Company. The facility utilizes anthracite mining waste as fuel for two CFB boilers. The steam produced is used to generate electricity and is also sold to Morea Steam Heat Co. The facility also operates under NPDES Permit No. PA0614611 on Surface Mining Permit No. 54850202. B-D Mining Company. The effluent limits in that that permit are BAT limits for coal mining activities. Non-discharge BMP's are in effect to contain all runoff from affected areas.

This renewal contains no new significant changes to the mine water usage or discharge conditions. They maintain the option to discharge to this Permit's Outfall 001, but it has yet to be utilized. The current Federal Part 423 ELG's took effect as of November 1, 2018 in their last tiered Permit and will remain unchanged for this 2021 Permit cycle; in the event that the outfall is ever used.

For this renewal outfall 001 has continuing TMDL WLA's. The TMDL limits from the Mahanoy Creek Watershed for Acid Mine Drainage Affected Segments, finalized on April 4, 2007 for this NPDES permit are:

- Aluminum - 2.0 mg/l = 5.17 pounds/day
- Iron - 12.56 mg/l = 32.47 pounds/day

Approve	Deny	Signatures	Date
X		Bernard Feist (signed) Bernard Feist, P.E. / Environmental Engineer	May 4, 2021
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	5-7-21

Summary of Review

- Manganese - 8.37 mg/l = 21.64 pounds/day.
 The TMDL specifies mass limits.

Since Outfall 001 discharges from a coal/steam electric facility it falls under the Effluent Limit Guidelines of Part 423. The Technology based limits from the ELG that are continued in this permit are for Free Available Chlorine ELG 423.12(b)(6) BPT and Total Chromium ELG 423.13 (d)(1) each with a monthly average limit of 0.2 mg/L. The Zinc ELG 423.13 (d)(1) BAT monthly average limit of 1.0 is less stringent than modelling of 0.87 mg/l so that limit will be continued. The modelling water quality-based limit of 0.1 for Copper is also unchanged from the previous permit. Continuing Oil & grease, and pH limits are Pa code Chapter 95.2 requirements

The ELG specifies that the daily maximum limits are the same as the monthly average limits for both Chromium and Zinc. The ELG Zinc daily maximum limit is 1.0 mg/L will be retained because it is more stringent than the modelling WQBEL daily maximum of 1.09 mg/L. Daily maximums were retained using a multiplier of 2.0 for Aluminum, Iron and Manganese as per the Technical Guidance for Developing of NPDES permit limits 362-0400-001. The Free Available Chlorine ELG 423.12 (6) BPT maximum daily limit is 0.5 mg/L. Mass limits will be continued for Copper along with 2016 modelling's maximum daily limit of 0.16 mg/L.

The following permit limits have been continued:

Outfall 001 (Non-contact cooling water, blowdown)

The effluent limits for **Outfall 001** based on a design flow of 0.310 mgd.

Parameter	Mass (lb/day)		Concentration (mg/l)			Basis
	Average	Maximum	Average	Maximum	Instantaneous	
	Monthly	Daily	Monthly	Daily	Maximum	
Flow	Report	Report				
Aluminum	5.17	10.34	Report	Report		TMDL
Iron	32.47	64.9	Report	Report		TMDL
Manganese	21.64	43.2	Report	Report		TMDL
pH			6.0 to 9.0		9.0	Chapter 95.2
Free Available Chlorine			0.2	0.5	0.5	ELG 423.12 (b)(6)
Zinc	Report	Report	0.87	1.0		2016/ ELG 423.13 (d)(1)
Copper	0.26	0.41	0.1	0.16		2016 Modelling
Oil and Grease			15.0		30.0	Chapter 95.2
Chromium Total	Report	Report	0.2	0.2		ELG 423.13(d)(1)

The current 40 CFR Part 423.15 best practicable control technology (BPT) update and 423.16 existing sources (PSES) update already took effect in the present Permit and will continue unchanged:

Pollutant or pollutant property	BPT Effluent limitations	
	Maximum for any 1 day (mg/l)	Average of daily values for 30 consecutive days shall not exceed (mg/l)
TSS	100.0	30.0
Oil and grease	20.0	15.0

Summary of Review

Pollutant or pollutant property	PSES	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
Arsenic, total (ug/L)	11	8
Mercury, total (ng/L)	788	356
Selenium, total (ug/L)	23	12
Nitrate/nitrite as N (mg/L)	17.0	4.4

including monitoring requirements for total dissolved solids, sulfate, chloride, bromide, and 1,4-dioxane.

Stormwater Only Outfalls 002, 003, 004 will be changed to monitoring as per PaDEP's current PAG03 stormwater General Permit - Appendix H

002	40 47 30	76 11 52	178,500 sq ft
003	40 47 35	76 11 51	222,066 sq ft
004	40 47 40	76 11 55	146,450 sq ft

The General and Appendix H BMPs of the NPDES PAG-03 General Permit for Discharges of Stormwater Associated with Industrial Activities that is in effect are required. For the Stormwater discharges from Steam Electric Generating facilities SIC Code: 4911 the current Appendix H requires the following monitoring requirements:

Parameter	Monitoring Requirements ⁽¹⁾		Benchmark Values
	Minimum Measurement Frequency ⁽²⁾	Sample Type	
pH (S.U.)	1 / 6 months	Grab	XXX
Total Suspended Solids (TSS) (mg/L)	1 / 6 months	Grab	100
Oil and Grease (mg/L)	1 / 6 months	Grab	30
Total Iron (mg/L)	1 / 6 months	Grab	XXX

The WMS Report query "Water Management System Inspections" was run. On 06/10/2018 a Routine/Partial Inspection was done with late reporting noted.

The WMS "Open Violations by Client Report" was run and there are No Open Violations.

The Existing Permit expires on 8/30/21 and a filling extension was granted.

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) 0.31
 Latitude 40° 48' 6.00" Longitude 76° 11' 52.00"
 Quad Name Shenandoah Quad Code 1236
 Wastewater Description: non-contact cooling water, cooling tower blowdown

Receiving Waters Mahanoy Creek Stream Code 17556
 NHD Com ID 54961271 RMI 47.5
 Drainage Area 17.43 Yield (cfs/mi²) 0.32
 Q₇₋₁₀ Flow (cfs) 5.58 Q₇₋₁₀ Basis USGS Gage 01467500
 Elevation (ft) 1150 Slope (ft/ft) 0.008
 Watershed No. 6-B Chapter 93 Class. WWF
 Existing Use na Existing Use Qualifier _____
 Exceptions to Use _____ Exceptions to Criteria _____
 Assessment Status Impaired
 Cause(s) of Impairment Metals, pH
 Source(s) of Impairment Abandoned Mine Drainage
 TMDL Status Final, 04/04/2007 Name Mahanoy Creek
 Permit has Waste Load Allocations

Nearest Downstream Public Water Supply Intake City of Harrisburg
 PWS RMI _____ Distance from Outfall (mi) >50

USGS Gage from 2011-1070 Streamflow Statistics@ 8 Miles away- Schuylkill County, Pennsylvania, Hydrologic Unit 02040203: Drainage area: 53.40 square miles: Datum of gage: 599.24 feet above NGVD29
 Q 7-10 = 17.2 cfs Yield (cfs/mi²) = 0.32

Mahanoy Creek - Stream Flow at outfall 001 is 17.43 mi² * .32 cfs/mi² = 5.58 cfs
Permitted Discharge = 0.31 MGD = 0.48 cfs

11.6 : 1 is the Dilution ration of Stream Flow / Permitted Discharge

Changes Since Last Permit Issuance: Same flow data

Model Results Ri-Corp, NPDES Permit No. PA0061697, Outfall 001

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

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits			Units	Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX				
Total Cadmium	Report	Report	Report	Report	Report	µg/L	6.92	CFC	Discharge Conc > 10% WQBEL (no RP)
Dissolved Iron	Report	Report	Report	Report	Report	µg/L	3.789	THH	Discharge Conc > 10% WQBEL (no RP)

Other Pollutants without Limits or Monitoring

- 2021 Modeling recommends the addition of Cadmium M&R to the existing



TMS PA0061697
2021.pdf

Compliance History

DMR Data for Outfall 003 (from March 1, 2020 to February 28, 2021)

Parameter	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20
pH (S.U.) Minimum			8.30									
pH (S.U.) Maximum			8.30									
Oil and Grease (mg/L) Daily Maximum			< 6.54									
Total Copper (mg/L) Daily Maximum			0.00529									
Total Iron (mg/L) Daily Maximum			1.16									
Total Nickel (mg/L) Daily Maximum			0.00745									
Total Zinc (mg/L) Daily Maximum			0.122									

DMR Data for Outfall 004 (from March 1, 2020 to February 28, 2021)

Parameter	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20
pH (S.U.) Minimum			7.39									
pH (S.U.) Maximum			7.39									
Oil and Grease (mg/L) Daily Maximum			< 6.06									
Total Copper (mg/L) Daily Maximum			0.00802									
Total Iron (mg/L) Daily Maximum			3.94									
Total Nickel (mg/L) Daily Maximum			0.00241									
Total Zinc (mg/L) Daily Maximum			0.180									