pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0104469**
Facility Type	**Non-Municipal**	APS ID	**1034478**
Major / Minor	**Minor**	Authorization ID	**1346847**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Kasgro Rail Corporation**	Facility Name	**Kasgro Rail Rundle Road Plant**
Applicant Address	121 Rundle Road	Facility Address	121 Rundle Road
	New Castle, PA 16102-1913		New Castle, PA 16102-1913
Applicant Contact	Jeff Plute	Facility Contact	Mike Davidson (Contract Operator)
Applicant Phone	(724) 658-9061 (jplut@kasgro.com)	Facility Phone	(724) 932-5050 (mdavidson@gmail.com)
Client ID	25731	Site ID	242436
Ch 94 Load Status	Not Overloaded	Municipality	Taylor Township
Connection Status	No Limitations	County	Lawrence
Date Application Received	March 9, 2021	EPA Waived?	Yes
Date Application Accepted	March 25, 2021	If No, Reason	
Purpose of Application	Renewal of a NPDES Permit for an existing discharge of treated sewage & industrial stormwater		

Summary of Review

This facility is primarily engaged in the manufacture of rail cars. This facility has a discharge of treated sewage from an onsite STP and two stormwater discharges associated with the facility. There are no other discharges to surface waters from this facility.

There are no perceived impacts to any threatened or endangered mussels from this discharge based on the size and location of the discharge.

There are currently no open violations listed in EFACTS for this permittee (1/28/2024).

The last facility inspection noted that a comminutor, bypass manual bar screen, and flow meter, that are permitted for this facility under WQM Permit No. 3773403, were not installed. The permittee should either make an effort to install this permitted equipment or submit an WQM amendment application to remove this equipment from the WQM Permit.

Sludge use and disposal description and location(s): Sludge is hauled offsite to Mahoning Township WWTP for further processing.

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.

Approve	Deny	Signatures	Date
X		Adam J. Pesek Adam J. Pesek, E.I.T. / Project Manager	January 28, 2024
X		*Vacant* / Environmental Engineer Manager	*Okay to Draft* *JCD 1/30/2024*

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.004
Latitude	40º 58' 5.0"	Longitude	-80º 22' 5.5"
Outfall No.	002	Design Flow (MGD)	0
Latitude	40º 58' 12.1"	Longitude	-80º 22' 7.12"
Outfall No.	003	Design Flow (MGD)	0
Latitude	40º 58' 20.5"	Longitude	-80º 21' 56.9"
Quad Name	New Castle South	Quad Code	1103
Wastewater Description:	Treated domestic sewage (001) and stormwater associated with industrial activities (002 & 003)		

Receiving Waters	Shenango River	Stream Code	35482
NHD Com ID	130032340	RMI	0.81
Drainage Area	1070	Yield (cfs/mi^2)	--
Q_{7-10} Flow (cfs)	212.14	Q_{7-10} Basis	See "Other Comments" below
Elevation (ft)	778	Slope (ft/ft)	
Watershed No.	20-A	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	POLYCHLORINATED BIPHENYLS (PCBs)		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status	Final	Name	Shenango River TMDL

Background/Ambient Data		Data Source
pH (SU)	7.3	WQN #910
Temperature (°F)	25	Default
Hardness (mg/L)		
Other:	0.1	Default

Nearest Downstream Public Water Supply Intake		PA American Water Company – Ellwood District	
PWS Waters	Beaver River	Flow at Intake (cfs)	450
PWS RMI	12.5	Distance from Outfall (mi)	9.5

Changes Since Last Permit Issuance: Closer PWS Intake operational.

Other Comments: Q_{7-10} Basis was found by using minimum release rate for the Shenango Dam (250x75%=187.5 CFS) and adding the accrued flow below the dam using the Little Shenango at Greenville gage for the yield (0.0507 cfsm).

Stormwater Outfalls 002 and 003 also discharge in the same general location as Outfall 001

Treatment Facility Summary

Treatment Facility Name: Kasgro Rail Corp

WQM Permit No.	Issuance Date
3773403 T-1	January 18, 1996

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Hypochlorite	0.004

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.004	8.5	Not Overloaded	Other WWTP	

Changes Since Last Permit Issuance: According to the last facility inspection report, the comminutor, bypass manual bar screen and effluent flow meter were not installed.

Other Comments:

Compliance History	
Summary of DMRs:	No effluent limit exceedances on DMRs in the past 5 years.
Summary of Inspections:	The last site inspection was conducted on 10/7/2021. The inspection report noted that supplemental reports had not been submitted, the comminutor, manual bypass bar screen, and effluent flow meter were not installed as permitted, and failure to properly document monitoring activities and results.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD) Average Monthly	0.001	0.001	0.001	0.001		0.001	0.001	0.001	0.001	0.001	0.001	0.001
pH (S.U.) Minimum	7.0	7.1	7.5	7.6		7.7	6.8	6.6	7.4	7.8	8.0	7.3
pH (S.U.) Maximum	7.0	7.1	7.5	7.6		7.7	6.8	6.6	7.4	7.8	8.0	7.3
TRC (mg/L) Average Monthly	0.1	0.1	0.2	0.1		0.1	0.2	0.1	0.1	0.3	0.3	0.2
BOD5 (mg/L) Average Monthly	< 2.0	< 2.0	< 2.0	3.8		< 2.0	< 2.0	2.9	< 2.0	2.0	< 2.0	< 2.0
TSS (mg/L) Average Monthly	9.0	< 5.0	5.0	< 5.0		5.0	< 5.0	< 5.0	5.0	5.0	< 5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	1		1	< 1	< 1	< 1	1	< 1	< 1

DMR Data for Outfall 002 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
pH (S.U.) Daily Maximum						6.8						6.8
TSS (mg/L) Daily Maximum						< 5.0						< 5.0
Oil and Grease (mg/L) Daily Maximum						< 5.1						5.3

DMR Data for Outfall 003 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
pH (S.U.) Daily Maximum						6.9						6.9
TSS (mg/L) Daily Maximum						< 5.0						< 5.0
Oil and Grease (mg/L) Daily Maximum						< 5.1						5.3

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.004
Latitude 40º 58' 5.00" **Longitude** -80º 22' 15.00"
Wastewater Description: Treated domestic sewage

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
E. Coli	Report (No./100 ml)	IMAX	-	92a.61

Comments: Monitoring for E. Coli is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Water Quality-Based Limitations

Comments: Due to the observation that average discharge flows are much less than the design flow (average flows are around 0.001 MGD) and noting significant dilution (34,281:1) is available in the receiving stream, no WQM modeling or TRC evaluation was done.

Best Professional Judgment (BPJ) Limitations

Comments: Monitoring frequencies for secondary treatment parameters were derived from the Department's SOP entitled "New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications" as the SOP relates to SFTFs due to actual plant flows consistently averaging 0.001 MGD.

A dissolved oxygen limit of a minimum of 4.0 mg/l and monitoring for total nitrogen and total phosphorus was placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

A TRC IMAX limit of 1.2 mg/l will be retained in this proposed renewed permit.

Additional Considerations

The Shenango River has a finalized TMDL for PCBs and chlordane. There is no point source Waste Load Allocations (WLAs) contained in the TMDL, but rather instream WLAs. Since these chemicals have been banned in the United States for over 30 years and there is no historical documentation (according to the TMDL) linking their production, use, or storage on this site, no monitoring will be included for this sewage discharge or the stormwater outfalls due to impairment.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No.	002	**Design Flow (MGD)**	0
Latitude	40º 58' 12.10"	**Longitude**	-80º 22' 5.50"
Outfall No.	003	**Design Flow (MGD)**	0
Latitude	40º 58' 20.50"	**Longitude**	-80º 21' 56.90"

Wastewater Description: Stormwater associated with industrial activities

Technology-Based Limitations

Comments: None

Water Quality-Based Limitations

Comments: None

Best Professional Judgment (BPJ) Limitations

Comments: In accordance with the Department's SOP entitled "Establishing Effluent limitations for Individual Industrial Permits," stormwater runoff from the industrial facility was given monitoring requirements for pH, TSS, COD, Oil and Grease, total nitrogen and total phosphorus, as found under the applicable appendix in the PAG-03 General Stormwater Permit. The applicable appendix is "J" and the proposed new General Permit template was used.

Anti-Backsliding

N/A

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" (386-0400-001), SOPs and/or BPJ.

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	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Estimate
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/month	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/month	Grab
Dissolved Oxygen	XXX	XXX	4.0 Daily Min	4.0	XXX	XXX	1/month	Grab
BOD5	XXX	XXX	XXX	25.0	XXX	50	1/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001 (after disinfection)

Other Comments: Flow measurement was changed from "measured" to "Estimate" as a flow meter was never installed, and flows are minimal.

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" (386-0400-001), SOPs and/or BPJ.

Outfall 002 and 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
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

Compliance Sampling Location: Outfall 002 and 003 (prior to mixing with any other waters)

Other Comments: N/A