pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285081**
Facility Type	**Storm Water**	APS ID	**1084437**
Major / Minor	**Minor**	Authorization ID	**1432639**

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

Applicant and Facility Information

Applicant Name	**E J Bognar Inc.**	Facility Name	**New Galilee Plant**
Applicant Address	733 Washington Road	Facility Address	528 Elmwood Boulevard
	Pittsburgh, PA 15228		New Galilee, PA 16141
Applicant Contact	Cynthia Bognar	Facility Contact	Joseph Kerchofer
Applicant Phone	412-944-9900	Facility Phone	
Client ID	171241	Site ID	836956
SIC Code	5171	Municipality	Big Beaver Borough
SIC Description	Wholesale Trade - Petroleum Bulk Stations and Terminals	County	Beaver
Date Application Received	March 23, 2023	EPA Waived?	Yes
Date Application Accepted	October 16, 2023	If No, Reason	

Purpose of Application: New Individual Stormwater Permit to replace General Permit.

Summary of Review

The Department received a new Individual Stormwater Permit application from Bognar & Co., Inc. for the New Galilee Plant on March 23, 2023. The facility's stormwater discharges are currently authorized by an NPDES General Permit PAG036270. With the 2023 NPDES General Permit update, renewal coverage may not be issued when the discharge is to HQ or EV waters.

The facility processes Petroleum Coke (PetCoke), all operations are conducted under roof. The facility's industrial activities are classified by NAICS Code 213113 – Support Activities for Coal Mining and the corresponding SIC Code is 1241 – Coal Mining Services.

The facility has four (4) buildings. Two (2) of the buildings are administrative (office and scale house) and two (2) of the buildings are operational buildings (Building 1 and Building 2) for processing activities and raw material storage. The processing of carbon, done in the carbon building, Building 1, includes screening, mixing, and packaging of both Metallurgical Coke Breeze and Petroleum Coke. Specialty mix, Building 2 is for the screening and mixing of sand and carbon for Bor-Fil. The portion of Building 1 situated on the western side of the train tracks is used for storage materials and the loading of railcars.

The New Galilee Plant is located within the North Fork Little Beaver Creek watershed, which is a High-Quality watershed. The facility identifies three (3) outfall locations that are identified as Geological Sinks. A geological sink is defined as a depression within an endorheic basin (retains water and allows no outflow to other external bodies of water) where water collects with no visible outlet. Instead of discharging, the collected water is lost due to evaporation and/or attenuation through the soil.

On November 20, 2019, the Department (Amanda Schmidt and Curt Holes) conducted a site inspection of the New Galilee Plant. The facility's stormwater flows ultimately to two (2) geologic sinks identified as Outfalls 002 and 003. Outfall 003

Approve	Deny	Signatures	Date
X		Curtis Holes, P.E. / Environmental Engineer	November 13, 2023
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	November 13, 2023

Summary of Review

receives stormwater from the northern portion of the property along with Building 2 roof drains and catch basins located on the western and northern sides of Building 1 and around Building 2. The stormwater is first received by geologic sink Outfall 001. The stormwater attenuates through the Geologic Sink Outfall 001 along with an overflow outlet pipe, identified during the inspection. The pipe conveys overflow stormwater from Outfall 001 approximately 800 feet north where the pipe daylights, refer to the picture below. The daylight location forms standing water that feeds into Geologic Sink Outfall 003 ultimately connecting geologic sinks 001 and 003 together.

Geologic Sink Outfall 001 Overflow Pipe Discharge Location

Summary of Review

Geologic Sink Outfall 001 Feeding into Geologic Sink Outfall 003

Geologic Sink Outfall 003

Geologic sink Outfall 002 receives stormwater from the southern portion of the property along with roof drains from Building 1 and catch basins located on the southern portion of Building 1. Geologic sink Outfall 002 is a wooded area with no standing water that has contours forming a large “bowl” area, refer to the picture below.

Summary of Review

Geologic Sink Outfall 002

During the inspection, it was confirmed that the Geologic Sinks 002 and 003 do not discharge surface water from the facility property. Both locations had signs that the water level was recently higher than observed at the time of the inspection, but there was no evidence of surface water leaving these two areas. All of the stormwater discharges evaporate and/or attenuate through the geologic sinks to groundwater.

E. J. Bognar, Inc. is a small company and has been selling carbon materials to the Steel Industry since the 1960's at the New Galilee Plant location. These products are used as re-carbonizers or as ladle addition in the steel making process. The company also produces a refractory product, Bor-Fil, also used by steel companies in the ladle.

Below is a summary of the Geological Sink Outfall locations identified on the NPDES Individual Stormwater application.

Geological Sink Outfall 001 (40° 49' 32.47", -80° 23' 43.86"): Drainage area of 314,965 ft^2. Outdoor storage piles (clay, coke fines, and other large solids) are exposed to the elements in this drainage area, all other industrial activities are conducted under roof. Current BMPs to control pollutions in the stormwater are; housekeeping procedures, employee education and awareness. Representative sampling location for Outfall 003.

Geological Sink Outfall 002 (40° 49' 20.32", -80° 24' 03.67"): Drainage area of 40,243 ft^2. Outdoor storage pile of coke fines is exposed to the elements in this drainage area, all other industrial activities are conducted under roof. Current BMPs to control pollutions in the stormwater are; housekeeping procedures, employee education and awareness.

Geological Sink Outfall 003 (40° 49' 41.18", -80° 23' 49.6"): Drainage area of 314,965 ft^2. Outdoor storage piles (clay, coke fines, and other large solids) along with a screener that is no longer in service are exposed to the elements in this drainage area, all other industrial activities are conducted under roof. Current BMPs to control pollutions in the stormwater are;

Summary of Review

housekeeping procedures, employee education and awareness. Outfall 001 (overflow discharge pipe) shall be the sampling location for both Outfalls 001 and 003.

The PPC Plan is dated May 20, 2019 and indicated that the facility has not had any pollution incidents, leaks or spills. The Plan will be reviewed annually to determine if changes are required to be implemented.

The client has no open violations.

The NPDES General Permit approval recommended.

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.

Compliance History

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

Parameter	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22
TSS (mg/L) Daily Maximum			354						35.5			
Oil and Grease (mg/L) Daily Maximum			< 8.3						< 5			

DMR Data for Outfall 002 (from September 1, 2022 to August 31, 2023)

Parameter	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22
TSS (mg/L) Daily Maximum			350						114			
Oil and Grease (mg/L) Daily Maximum			< 5.4						< 5			

DMR Data for Outfall 003 (from September 1, 2022 to August 31, 2023)

Parameter	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22
TSS (mg/L) Daily Maximum			35						230			
Oil and Grease (mg/L) Daily Maximum			< 7.1						< 5			

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0
Latitude	40º 49' 32.5"	Longitude	-80º 23' 43.9"
Outfall No.	002	Design Flow (MGD)	0
Latitude	40º 49' 20.3"	Longitude	-80º 24' 03.7"
Outfall No.	003	Design Flow (MGD)	0
Latitude	40º 49' 41.2"	Longitude	-80º 23' 49.6"

- The three (3) stormwater outfalls all discharge to geologic sinks not directly to Clarks Run (**HQ-CWF**).

Outfall 001 Monitoring Data Summary

Parameter	Average ($^{mg}/_{L}$)	Maximum ($^{mg}/_{L}$)	Existing Benchmark ($^{mg}/_{L}$)
Oil and Grease	<5.64	<8.3	30.0
BOD_5	<4.0	<4.0	N/A
COD	98.9	98.9	N/A
TSS	<73.93	**354**	100.0
Total Nitrogen	<2.13	<2.13	N/A
Total Phosphorus	0.59	0.59	N/A
pH (S.U.)	7.9	7.9	N/A

Outfall 002 Monitoring Data Summary

Parameter	Average ($^{mg}/_{L}$)	Maximum ($^{mg}/_{L}$)	Existing Benchmark ($^{mg}/_{L}$)
Oil and Grease	<5.29	<5.9	30.0
BOD_5	<4.0	<4.0	N/A
COD	97.1	97.1	N/A
TSS	77.9	**350**	100.0
Total Nitrogen	<2.13	<2.13	N/A
Total Phosphorus	0.46	0.46	N/A
pH (S.U.)	8.0	8.0	N/A

Outfall 003 Monitoring Data Summary

Parameter	Average ($^{mg}/_{L}$)	Maximum ($^{mg}/_{L}$)	Existing Benchmark ($^{mg}/_{L}$)
Oil and Grease	<5.64	<7.1	30.0
BOD_5	5.5	5.5	N/A
COD	21.7	21.7	N/A
TSS	<54.4	**230**	100.0
Total Nitrogen	<2.13	<2.13	N/A
Total Phosphorus	0.28	0.28	N/A
pH (S.U.)	6.9	6.9	N/A

Development of Effluent Limitations

Outfall No.	001, 002 and 003	**Design Flow (MGD)**	0
Latitude	Varies	**Longitude**	Varies

Wastewater Description: Stormwater

Technology-Based Limitations

Stormwater Technology Limits

Outfalls 001, 002 and 003 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls receive stormwater. The facility's industrial activities are classified by SIC code 1241 -Coal Mining Services (NAICS Code 213113 – Support Activities for Coal Mining), which corresponds to PAG-03's Appendix J, as summarized below in Table 1. The sector specific BMPs requirements contained in Appendix J will also be included in Part C of the Draft Permit.

Table 1: PAG-03 Appendix (J) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Oil and Grease	Monitor and Report	1/6 Months	Grab
Total Nitrogen	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab
Chemical Oxygen Demand (COD)	Monitor and Report	1/6 Months	Grab
pH	Monitor and Report	1/6 Months	Grab

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q_{7-10}) conditions. Stormwater discharges occur at variable rates and frequencies but not during Q_{7-10} conditions. Since the discharges from Outfalls 001, 002 and 003 are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations based on water quality analyses are not proposed.

Anti-Degradation

Antidegradation regulations under Chapter 93.4c(a)(1)(i) requires discharges to protect the existing use of the receiving waters. Existing use protection is ensured by imposing the most stringent of technology-based, water quality based and non-degrading effluent limitations. Chapter 93.4c(b) requires new and increased dischargers to high quality or exceptional value streams to consider non-discharge alternatives, public participation and social/economic justification. In this case, non-degradation effluent limitations are not applicable because the discharge is only stormwater. To ensure that the facility discharges do not degrade the stream, the permit will set the no exposure benchmark values for COD, Total Nitrogen, Total Phosphorus, TSS and oil and grease. The goal for the permittee is to be consistently below these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters.

Proposed Effluent Limitations and Monitoring Requirements

The permittee conducted non-discharge alternatives analysis because the stormwater discharge is to a high-quality waterway but concluded because the discharge is stormwater only that there are not technically feasible, cost effective or environmentally sound alternatives to the stormwater discharge. Non-degrading effluent limitations were not developed or imposed because the discharge is stormwater only. To ensure that the discharge does not degrade the stream, the no exposure benchmark values will be used as the benchmark values in the permit. The goal for the permittee is to consistently achieve these benchmark values; doing this shows that the discharges are uncontaminated stormwater and will maintain and protect the existing quality of the receiving waters. The proposed effluent monitoring requirements are summarized in Table 2 below.

The permit application's stormwater analytical results for total suspended solids (TSS) and chemical oxygen demand (COD) exceed the No Exposure Benchmark Values. Considering the elevated results, the facility is evaluating the existing Best

Management Practices (BMPs) and general housekeeping procedures. The purpose of the evaluation is to reduce the TSS and COD in the stormwater runoff from the site.

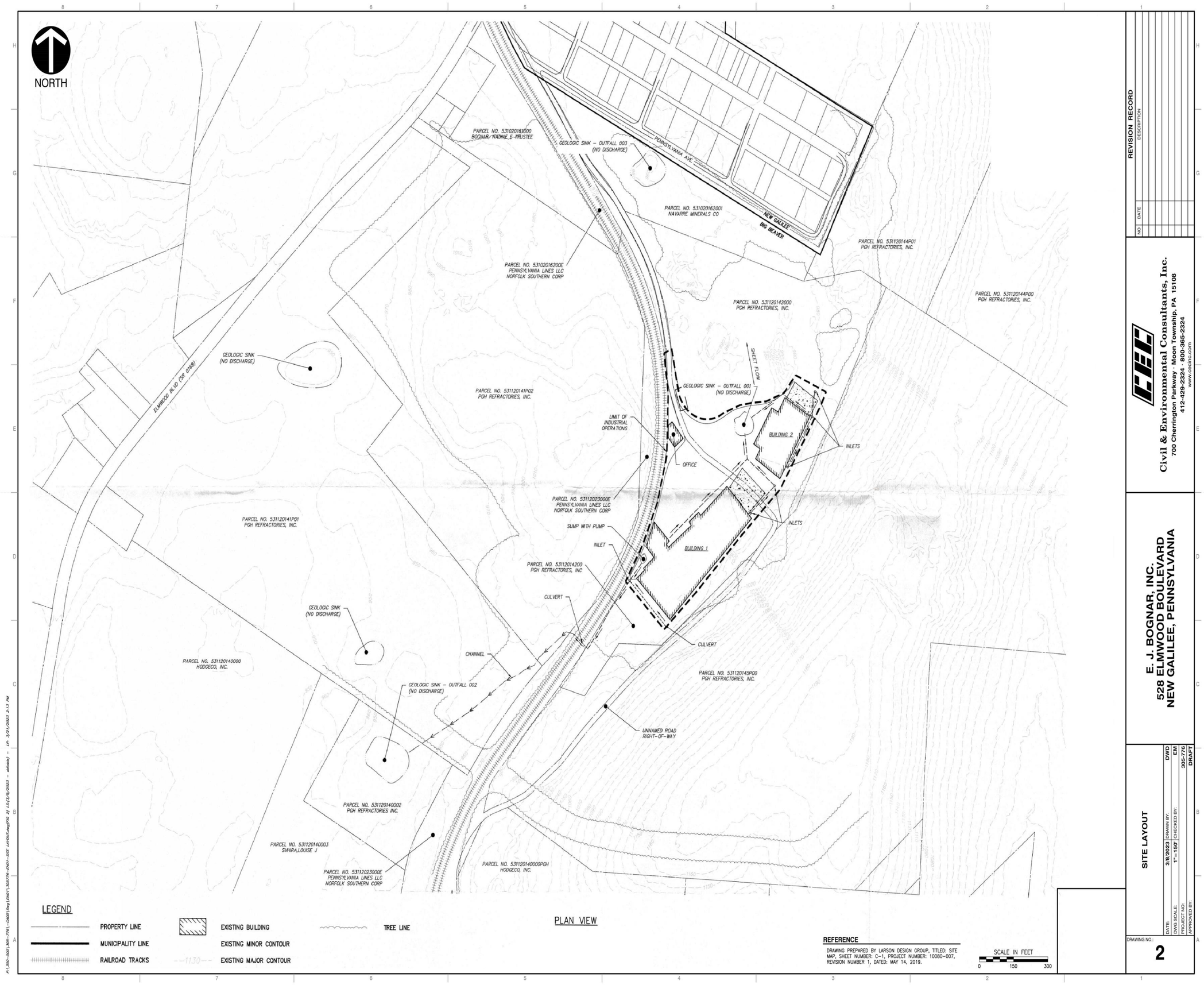
A Part C condition is included in the Draft Permit requiring a Corrective Action Plan (CAP) whenever there is an exceedance of the benchmark values. These values are not effluent limitations, an exceedance of the benchmark value is not a violation. If there is an exceedance of the benchmark values, a CAP must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater. To ensure that the discharge is not degrading the high-quality waters, the no exposure benchmark values will be used as the benchmark values in the permit.

Table 2: Proposed Effluent Monitoring Requirements

Parameter	Max Daily Concentration	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	Monitor and Report	30.0	1/6 Months	Grab
Oil and Grease	Monitor and Report	5.0	1/6 Months	Grab
Total Nitrogen	Monitor and Report	2.0	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1.0	1/6 Months	Grab
Chemical Oxygen Demand	Monitor and Report	30.0	1/6 Months	Grab
pH	Monitor and Report	9.0	1/6 Months	Grab

Site Plan from eMaps

Site Layout


NORTH
PARCEL NO. 531020161000
BOGNAR, NADINE E- TRUSTEE
GEOLOGIC SINK – OUTFALL 003
(NO DISCHARGE)
PENNSYLVANIA AVE.
NEW GALILEE
BIG BEAVER
PARCEL NO. 531020162001
NAVARRE MINERALS CO
PARCEL NO. 531120144P01
PGH REFRACTORIES, INC.
PARCEL NO. 531020162002E
PENNSYLVANIA LINES LLC
NORFOLK SOUTHERN CORP
PARCEL NO. 531120142000
PGH REFRACTORIES, INC.
PARCEL NO. 531120144P00
PGH REFRACTORIES, INC.
GEOLOGIC SINK
(NO DISCHARGE)
ELMWOOD BLVD (SR 0168)
PARCEL NO. 531120141P02
PGH REFRACTORIES, INC.
SHEET FLOW
GEOLOGIC SINK – OUTFALL 001
(NO DISCHARGE)
LIMIT OF
INDUSTRIAL
OPERATIONS
BUILDING 2
INLETS
OFFICE
PARCEL NO. 531120230002E
PENNSYLVANIA LINES LLC
NORFOLK SOUTHERN CORP
PARCEL NO. 531120141P01
PGH REFRACTORIES, INC.
SUMP WITH PUMP
INLET
BUILDING 1
INLETS
PARCEL NO. 53112014200
PGH REFRACTORIES, INC
CULVERT
GEOLOGIC SINK
(NO DISCHARGE)
CULVERT
CHANNEL
PARCEL NO. 531120140000
HODGECO, INC.
PARCEL NO. 531120145P00
PGH REFRACTORIES, INC.
GEOLOGIC SINK – OUTFALL 002
(NO DISCHARGE)
UNNAMED ROAD
RIGHT-OF-WAY
PARCEL NO. 531120140002
PGH REFRACTORIES INC.
PARCEL NO. 531120140003
SWIRA,LOUISE J
PARCEL NO. 531120140000PGH
HODGECO, INC.
PARCEL NO. 531120230002E
PENNSYLVANIA LINES LLC
NORFOLK SOUTHERN CORP
LEGEND
PROPERTY LINE
MUNICIPALITY LINE
RAILROAD TRACKS
EXISTING BUILDING
EXISTING MINOR CONTOUR
EXISTING MAJOR CONTOUR
TREE LINE
PLAN VIEW
REFERENCE
DRAWING PREPARED BY LARSON DESIGN GROUP, TITLED: SITE MAP, SHEET NUMBER: C-1, PROJECT NUMBER: 10080-007, REVISION NUMBER 1, DATED: MAY 14, 2019.
SCALE IN FEET
0
150
300
REVISION RECORD
NO
DATE
DESCRIPTION
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528 ELMWOOD BOULEVARD
NEW GALILEE, PENNSYLVANIA
SITE LAYOUT
DATE: 3/8/2023
DRAWN BY: DWD
DWG SCALE: 1"=150'
CHECKED BY: EM
PROJECT NO: 305-776
APPROVED BY: DRAFT
DRAWING NO.: 2