

Application Type Renewal  
Facility Type Storm Water  
Major / Minor Minor

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

Application No. PA0244228  
APS ID 1100704  
Authorization ID 1461428

**Applicant and Facility Information**

Applicant Name	<u>HYK Construction Company Inc.</u>	Facility Name	<u>Rahns Construction Material Company</u>
Applicant Address	<u>430 Bridge Road</u> <u>Collegeville, PA 19426</u>	Facility Address	<u>430 Bridge Road</u> <u>Collegeville, PA 19426</u>
Applicant Contact	<u>Andrew Curtis</u>	Facility Contact	<u>Daniel Condiles</u>
Applicant Phone	<u>(610) 584-8500</u>	Facility Phone	<u>(610) 489-2646</u>
Client ID	<u>53176</u>	Site ID	<u>249667</u>
SIC Code	<u>3272,3273</u>	Municipality	<u>Perkiomen Township</u>
SIC Description	<u>Manufacturing - Concrete Products, Nec, Manufacturing - Ready-Mixed Concrete</u>	County	<u>Montgomery</u>
Date Application Received	<u>October 30, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>November 15, 2023</u>	If No, Reason	<u></u>
Purpose of Application	<u>Permit Renewal.</u>		

**Summary of Review**

The permittee requests approval for the renewal of a National Pollutant Discharge Elimination System (NPDES) Individual Permit to discharge stormwater from Rahns Construction Material Company, a ready-mix concrete batch plant. This facility is located at 430 Bridge Road, Collegeville, PA 19426 and discharges stormwater to the Perkiomen Creek - a designated warm water fishes, migratory fishes (WWF, MF) under Chapter 93.

The Rahns Concrete Batch Plant is engaged in the production of ready-mix concrete. Concrete, comprised of cement, aggregate (stone), sand and water, is prepared by first batching the dry materials per mix design requirements and discharging each from the plant into the concrete mixer truck. This is then followed by the addition of the required volume of water to the dry materials. The cement material, which must remain dry prior to use, is stored in silos at the plant. Fly ash, which is also used during certain times of the year in place of cement, is likewise stored in a silo. While the moisture percentage of both the stone and sand is important in the concrete design (due to the volume used), it is not practical to store these in an enclosed area. Hence, both are stockpiled on-site and exposed to the elements. A concrete reclaiming system is located next to the washout pits. This system is designed to take small quantities returned in the mixer trucks and turn it into usable product for future concrete batches. In addition to the stone and sand, waste concrete materials are stockpiled at the site and utilized both on and off-site as clean fill. Please note that whenever possible, excess yardage is poured in forms on-site to make large blocks. The waste concrete consists of sand, stone and fines from the on-site washout pit. The washout pit is closed system designed to trap mix materials rinsed from the mixer drum during wash-down. Water used for washing the drum is continually recycled. Roads in the plant area, with the exception of the mixer truck loading area and fueling area are surfaced with stone. Stormwater runoff from the plant area and stone, sand and waste concrete stockpiles exit the site at one common point.

Approve	Deny	Signatures	Date
X		<i>Amy Boginsky</i> Amy Boginsky, MS, EIT / Environmental Engineering Specialist	May 9, 2024
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	05/09/2024

**Summary of Review**

Outfall 001 receives stormwater from a sediment trap, and this structure is designed to settle out the solids in the stormwater runoff before overflowing and discharging through a drainage field to the Perkiomen Creek tributary. Outfall 002 has a concrete diverter to prevent any discharge from the yard to flow to it. There are 3 settling pits next to the outfall and the overflow goes into a sump pump. The overflow is pumped to a storage pit located at the back of the facility. Outfall 003 is a storm drain that is located in the entrance parking lot. This outfall collects rainwater from the fueling area, maintenance shop area and the facility entrance.

Stormwater Sampling Results for Outfall 001 submitted in the permit application are found below.

Pollutant	Maximum Concentration (mg/l)
Oil and Grease	< 1.2
TSS	38.7
pH (S.U.)	9.67
Iron	0.459
Aluminum	0.67

Stormwater Sampling Results for Outfall 002 submitted in the permit application are found below.

Pollutant	Maximum Concentration (mg/l)
Oil and Grease	< 1.4
TSS	17.3
pH (S.U.)	9.1
Iron	0.261
Aluminum	0.346

The pH results are above the permit limit of 9.0.

Total Suspended Solids

In accordance with the EPA Multi-Sector General Permit – storm water discharges from Concrete and Gypsum Product Manufacturers (SIC 3271-3275) have a benchmark monitoring cutoff concentration for TSS of 100 mg/l. Also, under 40 CFR 411 Cement Facility Manufacturing, Materials Storage Runoff. Any discharge composed of runoff that derives from the storage of materials including raw materials, intermediate products, finished products, and waste materials that are used in or derived from the manufacture of cement has a TSS limit of 50 mg/l. 40 CFR 411, exempts discharges from the technology-based limits for storm events exceeding a 10-year, 24-hour event.

pH

In accordance with 25 Pa Code 95.2 – Industrial wastes shall have a pH of no less than 6 and no greater than 9 S.U. Under this subchapter, exceptions may be made for streams impacted with acid mine drainage. In accordance with 25 Pa Code 93.7 – Specific water quality criteria for pH shall be from 6.0 to 9.0 S.U.

Oil and Grease

In accordance with 25 Pa Code 93.6 – Specific substances to be controlled include, but are not limited to, floating materials, oil, grease, scum and substances which produce color, tastes, odors, turbidity or settle to form deposits. In accordance with 25 Pa Code 95.2 – Wastewaters shall at no time contain more than 15 mg/l of oil as a daily average not more than 30 mg/l of oil at any time, or whatever lesser amount the Department may specify for a given discharge or type or discharge, etc. Monitor and report will continue in this permit renewal.

Total Aluminum & Total Iron

The SICs applicable to this facility and submitted in the permit renewal application are 3273 and 3272. These SICs are within the SIC 3271-3275 for Concrete, Gypsum, and Plaster Products. In the General Permit for Discharge of Stormwater Associated with Industrial Activity (PAG-03) this SIC codes are for Appendix N. Appendix N requires general permits to monitor and report for TSS, pH, Oil and Grease, Total Aluminum, and Total Iron.

**Summary of Review**

Total Nitrogen and Total Phosphorus

The SICs applicable to this facility and submitted in the permit renewal application are 3273 and 3272. These SICs are within the SIC 3271-3275 for Concrete, Gypsum, and Plaster Products. In the General Permit for Discharge of Stormwater Associated with Industrial Activity (PAG-03) this SIC codes are for Appendix N. A reporting requirement for Total Nitrogen and Total Phosphorus were added to this permit renewal for all the outfalls to comply with the new requirements of the new PAG-03.

Stormwater BMPs

The EPA Multi-Sector General Permit (MSGP) covers Concrete and Gypsum Product Manufacturers (SIC 3271-3275). Parts 4 and 6 of the MSGP requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared that includes structural, non-structural and other BMPs. Structural BMPs include structures that typically are used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site. Storm water BMPs shall be designed to control pollutants to the technology based effluent limits established for the concrete product industry for storm events up to and including a 10-year, 24-hour storm event. The DEP determined that waste stockpiles of concrete are an environmental and safety concern and shall be properly managed by the facility. Specific BMP that requires the removal of stockpiled waste concrete material, and the proper management of excess concrete and tuck barrel washings will continue in this permit renewal.

Act 14 Notifications:

- Perkiomen Township - October 31, 2023
- Montgomery County Planning Commission - October 31, 2023
- Delaware River Basin Commission - October 31, 2023

Draft permit will be sent to permittee, consultant, and operation section.

Recommended Part C Conditions:

- I. Stormwater Outfalls and Authorized Non-Stormwater Discharges
- II. Best Management Practices (BMPs)
- III. Routine Inspections
- IV. Preparedness, Prevention and Contingency (PPC) Plan
- V. Stormwater Monitoring Requirements
  - A. Acquire Necessary Property Rights
  - B. Sludge Disposal Requirement
  - C. BMPs to Control TSS and pH
  - D. Remedial Measures if Public Nuisance
  - E. 10-year, 24-Hour Rainfall Event Definition

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.	<u>001</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>40° 12' 26.06"</u>	Longitude	<u>-75° 27' 0.86"</u>
Quad Name	<u>Collegeville</u>	Quad Code	<u>1742</u>
Wastewater Description: <u>Stormwater</u>			
Receiving Waters	<u>Perkiomen Creek (WWF, MF)</u>	Stream Code	<u>01017</u>
NHD Com ID	<u>25966534</u>	RMI	<u>0.2900</u>
Drainage Area	<u>288 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.07396</u>
Q <sub>7-10</sub> Flow (cfs)	<u>21.3</u>	Q <sub>7-10</sub> Basis	<u>PA StreamStats</u>
Elevation (ft)	<u>103.48</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>3-E</u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u>None</u>	Existing Use Qualifier	<u>N/A</u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>N/A</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>PATHOGENS</u>		
Source(s) of Impairment	<u>SOURCE UNKNOWN</u>		
TMDL Status	<u></u>	Name	<u></u>
Nearest Downstream Public Water Supply Intake	<u>Collegeville Trappe JT Public Works</u>		
PWS Waters	<u>Perkiomen Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u>1.63</u>	Distance from Outfall (mi)	<u>1.34</u>

Changes Since Last Permit Issuance: None

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>002 &amp; 003</u>	Design Flow (MGD)	<u>0</u>
Latitude	<u>40° 12' 31.96"</u>	Longitude	<u>-75° 27' 0.40"</u>
			<u>1742</u>
Quad Name	<u>Collegeville</u>	Quad Code	<u></u>
Wastewater Description:	<u>Stormwater</u>		
Receiving Waters	<u>Perkiomen Creek (WWF, MF)</u>	Stream Code	<u>01017</u>
NHD Com ID	<u>25966534</u>	RMI	<u>0.4000</u>
Drainage Area	<u>288 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.07396</u>
Q <sub>7-10</sub> Flow (cfs)	<u>21.3</u>	Q <sub>7-10</sub> Basis	<u>StreamStats</u>
Elevation (ft)	<u>1030.47</u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>3-E</u>	Chapter 93 Class.	<u>WWF, MF</u>
Existing Use	<u>None</u>	Existing Use Qualifier	<u>N/A</u>
Exceptions to Use	<u>None</u>	Exceptions to Criteria	<u>N/A</u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>PATHOGENS</u>		
Source(s) of Impairment	<u>SOURCE UNKNOWN</u>		
TMDL Status	<u></u>	Name	<u></u>
Nearest Downstream Public Water Supply Intake	<u>Collegeville Trappe JT Public Works</u>		
PWS Waters	<u>Perkiomen Creek</u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u>1.63</u>	Distance from Outfall (mi)	<u>1.34</u>

Changes Since Last Permit Issuance: None

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Rahns Concrete Batch Plant				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Storm Water				
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal

Changes Since Last Permit Issuance: No changes

Compliance History	
<b>Summary of Inspections:</b>	This facility was last inspected on December 5, 2023. No violations were noted. Recommendations: <ol style="list-style-type: none"><li>1. Storm drain for Outfall 003 be cleaned out and liner replaced – confirmed complete</li><li>2. The water level in the pits to be lowered and maintained at a level to ensure overflow does not occur</li><li>3. Clean up staining near oil tote and add spill kit – confirmed complete</li></ol>

Other Comments: Facility inspection report below:



Rahns\_Concrete\_Batc  
h\_Plant\_PA0244228\_RT

**Compliance History**

**DMR Data for Outfall 001 (from March 1, 2023 to February 29, 2024)**

Parameter	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23
pH (S.U.) Instantaneous Minimum			8.62			7.42						
pH (S.U.) Instantaneous Maximum			8.62			7.42						
TSS (mg/L) Average Quarterly			54.3			246.0						
TSS (mg/L) Daily Maximum			54.3			246.0						
Oil and Grease (mg/L) Daily Maximum			< 1.2			< 1.2						
Total Aluminum (mg/L) Daily Maximum			2.15			7.59						
Total Iron (mg/L) Daily Maximum			1.71			6.09						

**DMR Data for Outfall 002 (from March 1, 2023 to February 29, 2024)**

Parameter	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23
pH (S.U.) Instantaneous Minimum						7.25						
pH (S.U.) Instantaneous Maximum						7.25						
TSS (mg/L) Average Quarterly						536.0						
TSS (mg/L) Daily Maximum						536.0						
Oil and Grease (mg/L) Daily Maximum						< 1.2						
Total Aluminum (mg/L) Daily Maximum						10.4						



Total Iron (mg/L) Daily Maximum						13.2						
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**Compliance History**

**Effluent Violations for Outfall 001, from: April 1, 2023 To: February 29, 2024**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	09/30/23	Avg Qrtly	246.0	mg/L	50.0	mg/L
TSS	12/31/23	Avg Qrtly	54.3	mg/L	50.0	mg/L
TSS	09/30/23	Daily Max	246.0	mg/L	100.0	mg/L

**Effluent Violations for Outfall 002, from: April 1, 2023 To: February 29, 2024**

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	09/30/23	Avg Qrtly	536.0	mg/L	50.0	mg/L
TSS	09/30/23	Daily Max	536.0	mg/L	100.0	mg/L

Comments: Facility has increased housekeeping items such as additional sweeping, changing sweeping directions, and increasing the amount of times the H&K sweeper truck performs sweeping at the facility to address the TSS violations.

**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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/quarter	Grab
TSS	XXX	XXX	XXX	50.0	100.0	100	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Compliance Sampling Location: Outfall 001

**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, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/quarter	Grab
TSS	XXX	XXX	XXX	50.0	100.0	100	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Compliance Sampling Location: Outfall 002

**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 003, Effective Period: Permit Effective Date through Permit Expiration Date.**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Upon Request	Grab
TSS	XXX	XXX	XXX	50.0	100.0	100	Upon Request	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Aluminum	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Iron	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	Upon Request	Grab

Compliance Sampling Location: Outfall 003