Pennsylvania Department of Environmental Protection

Northeast Regional Office
CLEAN WATER PROGRAM

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

Application Type	**Renewal**	Application No.	**PA0065421**
Facility Type	**Industrial**	APS ID	**830173**
Major / Minor	**Minor**	Authorization ID	**1475394**

Applicant and Facility Information

Applicant Name	**Heidelberg Materials US Cement LLC**	Facility Name	**Heidelberg Materials US Cement LLC Plant I**
Applicant Address	7660 Imperial Way	Facility Address	3938 Easton Nazareth Highway
	Allentown, PA 18195		Nazareth, PA 18064
Applicant Contact	Burek Krzysztof	Facility Contact	Dave Wagner
Applicant Phone	(610) 837-3730	Facility Phone	(484) 591-8156
Client ID	62583	Site ID	253115
SIC Code	3241	Municipality	Nazareth Borough
SIC Description	Manufacturing - Cement, Hydraulic	County	Northampton
Date Application Received	February 29, 2024	EPA Waived?	Yes
Date Application Accepted	March 6, 2024	If No, Reason	

Purpose of Application: Renewal of NPDES permit to discharge stormwater and IW wastewater.

Summary of Review

The applicant is requesting the renewal of a NPDES permit to discharge noncontact cooling water and stormwater to unnamed tributary to Shoeneck Creek designated as warm water fishes (WWF) in State Water Plan Basin 1-F (Jacoby-Bushkill Creeks) though Outfall 002 and stormwater only through Outfall 003. This facility also discharges stormwater through Outfall 004 to an Unnamed Tributary to East Monocacy Creek, a High Quality-Cold Water Fishes (HQ-CWF) designated receiving stream in in State Water Plan Basin 2-C (Lower Lehigh River).

The receiving stream is impaired by three (3) causes: Urban Runoff, Pathogens, and Mercury (Atmospheric Deposition). Discharge from this facility is not expected to impact these impairments.

The facility's SIC code is 3241 (Hydraulic Cement) and falls under Appendix N stormwater monitoring requirements of the PAG03 General Permit. Appendix N of the latest PAG03 general permit includes semi-annual monitoring requirements for Total Nitrogen, Total Phosphorus, pH, Total Suspended Solids, Total Aluminum, and Total Iron. These monitoring requirements, apart from Total Nitrogen, Total Phosphorus, pH, and Total Suspended Solids, will also be added to Outfall 002, which discharges stormwater as listed in the permit application. This was not a requirement in previous permits.

The discharge is subject to Effluent Limitations Guidelines (ELG) for the Cement Manufacturing Point Source Category (40 CFR Part 411) which recognizes that most of the water used by cement plants is for equipment cooling. For this facility, Subpart A (Nonleaching Subcategory) applies for cooling water that does not come in contact with kiln dust or wet scrubbers, and Subpart C (Materials Storage Piles Runoff Subcategory) applies for the site stormwater runoff. As per the previous permit renewal's Fact Sheet: "The ELG's call for monitoring of TSS, Temperature, and pH. Per prior guidance from EPA on the review of permit PA0063991, it was concluded that the ELG limiting a 3° rise above inlet temperature is not applicable when the facility utilizes well water or public water for their intake water." This will be maintained in this permit renewal.

Approve	Deny	Signatures	Date
X		*William Hon* William Hon / Environmental Engineer Specialist	April 2, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	May 1, 2025

Summary of Review

This facility has a DRBC Docket No. D-2009-016-4 (Approval date June 5, 2024) for Outfall 002 (Bushkill Creek Watershed). The new docket states "Since this project does not entail additional construction or expansion of facilities and there are no new or increased non-point source loads associated with this approval, the NPSPCP requirement is not applicable at this time.". All monitoring requirements from previous permit associated with the DRBC docket will be carried over to permit renewal.

Outfall Information:

Outfall Number	Location	Effluent Type	Design Flow (MGD)	Average Flow (MGD)	Receiving Stream
(Plant 1) 002	40'43'43", -75'17'34"	Stormwater, NCCW	3.0	0.25	UNT to Shoeneck Creek
IMP 102	40'43'51", -75'18'12"	NCCW	0.7	0.09	UNT to Shoeneck Creek via Outfall 002
IMP 202	40'43'49", -75'18'07"	NCCW	0.2	0.29	UNT to Shoeneck Creek via Outfall 002
(Plant 3) 003	40'43'57", -75'19'07"	Stormwater	N/A	N/A	UNT to Shoeneck Creek
(Plant 2) 004	40'43'45", -75'20'17"	Stormwater	N/A	N/A	UNT to East Branch Monocacy Creek

Chemical Additives Information:

Chemical Name	Outfall	Purpose	Usage Frequency	Maximum Usage Rate	Units
12.5% Sodium Hypochlorite	002, IMP102, IMP202	Algae Control	Daily	100	Gallons
Depositrol BL5400	002, IMP102, IMP202	Deposit Control Agent	Daily	2	Gallons
Gengard GN7004	002, IMP102, IMP202	Dispersant	Daily	5	Gallons
Inhibitor AZ8101	002, IMP102, IMP202	Corrosion Inhibitor	Daily	1	Gallons

Stormwater monitoring and sampling requirements have been updated to the more recent PAG03 appendix requirements. This includes new requirements for Total Nitrogen and Total Phosphorus.

Based upon the maximum daily production of 6,940 metric tons (as reported in the previous permit fact sheet), the unchanging TSS limit is calculated as follows:

TSS = 0.005 lbs/1000 lbs cement X 6940 metric tons/day X 2204 lbs/metric ton = 76.5 lbs/day

This value remains the same as the previous permit. The TSS load will be split between IMP 102 and IMP 202 based upon the applicants request for production purposes as identified in the previous application. Using the same formula from the previous application:

The maximum discharges recorded were 0.22 MGD at IMP-102 and 0.60 MGD at IMP-202 as indicated on the permit application.

IMP 102: 0.22 / (0.22 + 0.60) X 76.5 lbs/day = 20.5 lbs/day (maximum daily)
IMP 202: 0.60 / (0.22 + 0.60) X 76.5 lbs/day = 55.9 lbs/day (maximum daily)

This is a slight alteration from the previous permit which was:

Summary of Review

IMP 102: 0.43 / (0.43 + 0.28) X 76.5 lbs/day = 46.3 lbs/day (maximum daily)
IMP 202: 0.28 / (0.43 + 0.28) X 76.5 lbs/day = 30.2 lbs/day (maximum daily)

The technology-based limits for oil & grease per §95.2(2)(ii) are also applied to IMP 102 and 202 (i.e., 15 mg/l average and 30 mg/l maximum daily).

For outfall 002, the technology-based oil & grease limits and the BPJ temperature limit will be continued from previous permit PA0063991, which was associated with the same facility.

Modeling using the Toxics Management spreadsheet resulted in one (1) new WQBEL and Monitoring Requirement recommendation. This is for Hexavalent Chromium. It was determined that this would not be implemented into the permit due to the source most likely being the intake stream and not the water used by the facility. The water used in this facility is non-contact cooling water.

Analysis results table pollutant group 1 and 2 for Outfall 002 was used for inputs for the TMS modeling. pH and Total Hardness used for modeling was based on Long-Term Average Value submitted by permittee.

All self-monitoring requirements for limitations have been updated to reflect Table 6-4 of the Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits Manual.

The modeling on the previous permit was performed using a flow value of 0.058MGD. Modeling performed for this permit renewal will have a discharge rate of 0.35MGD. This is based on proximity to the annual monthly discharge rate of .25MGD and a statement in the DRBC docket for design criteria. The statement reads “The docket holder’s manufacturing facility will continue to discharge up to 0.35 mgd of NCCW and stormwater via Outfall No. 002. The discharge of up to 0.35 mgd was determined based on the facility’s maximum monthly discharge rate using its 2012-2013 discharge data.”. Q_{7-10} flows for point 1 and point 2 were found using data from USGS Streamstats.

The previous inspection held at this facility was a compliance evaluation that occurred in December of 2022 and resulted in zero (0) NOVs. There are no open clean water violations that would warrant the withholding of the issuance of this permit. Recommend approval.

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.

Modeling Inputs:

PT 1@ Outfall 002
Stream Code: 4628, RMI: 4

Summary of Review

Clicked Point (Latitude, Longitude): 40.72807, -75.29557
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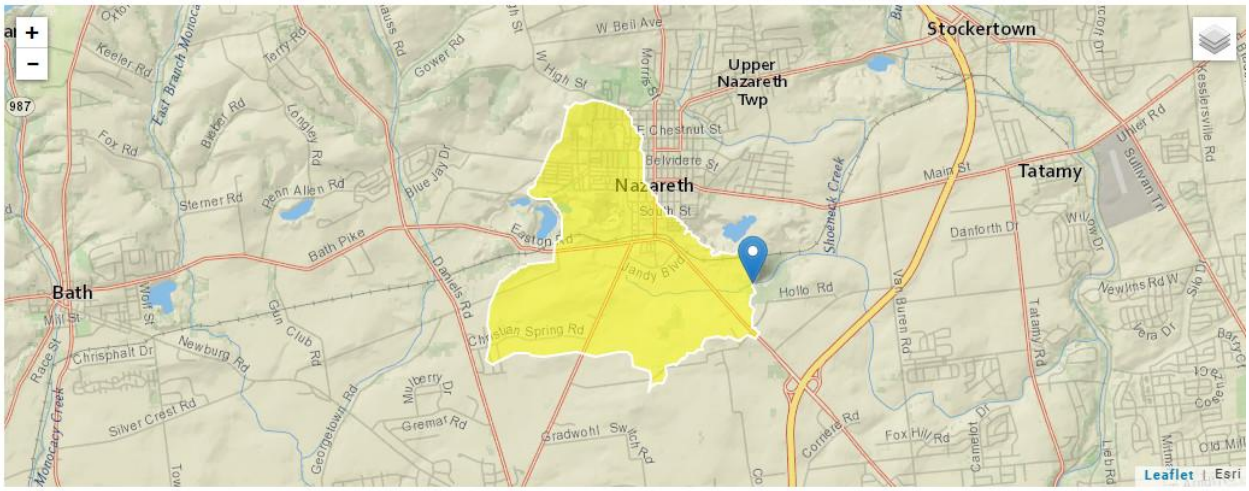

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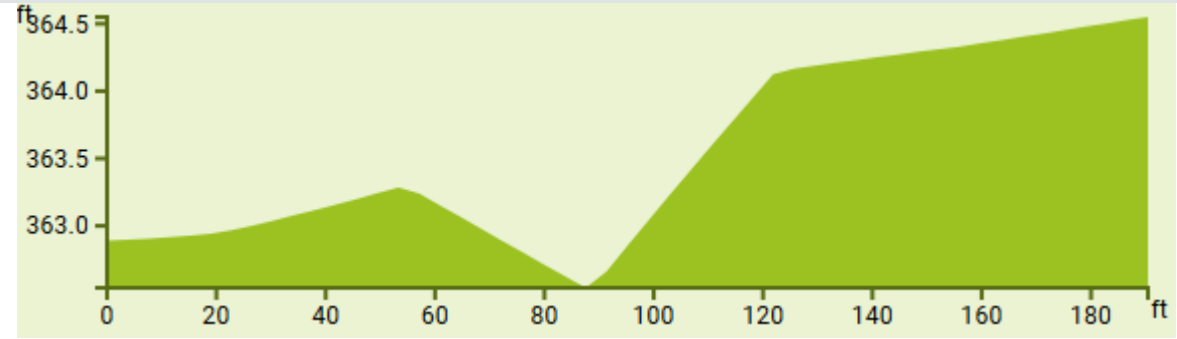
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	93.51	percent
DRNAREA	Area that drains to a point on a stream	2.3	square miles

Low-Flow Statistics Flow Report [Low Flow Region 2]

Statistic	Value	Unit
7 Day 2 Year Low Flow	2.07	ft^3/s
30 Day 2 Year Low Flow	2.28	ft^3/s
7 Day 10 Year Low Flow	1.2	ft^3/s

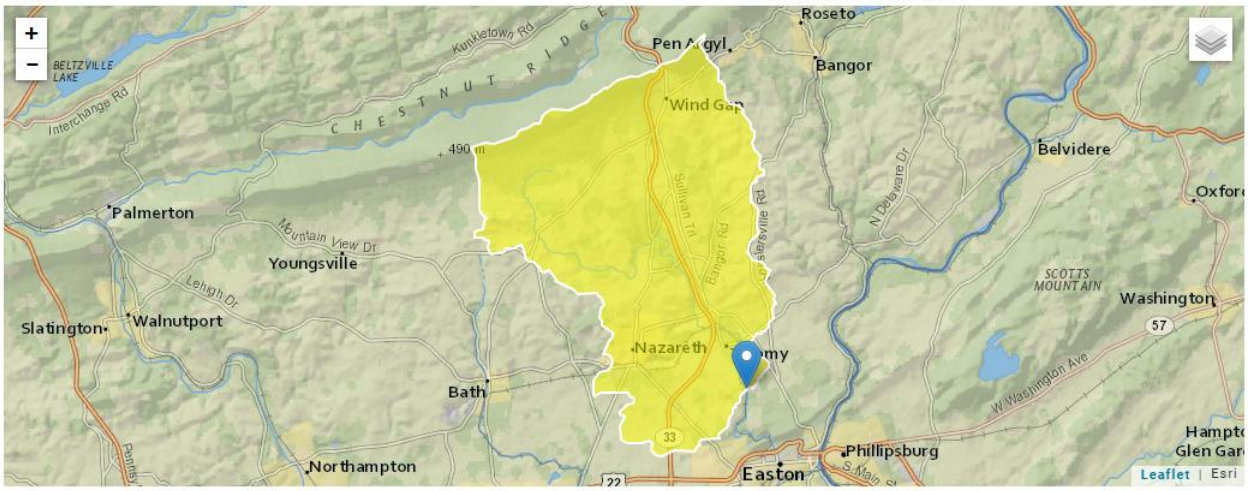


40.72800	-75.29555	362.54	87.59

PT2 @ conflux w/ Bushkill Creek (4624) aprox 4 miles away
RMI: .01

Summary of Review

Clicked Point (Latitude, Longitude): 40.72210, -75.24607
Time: 2025-01-29 11:27:11 -0500



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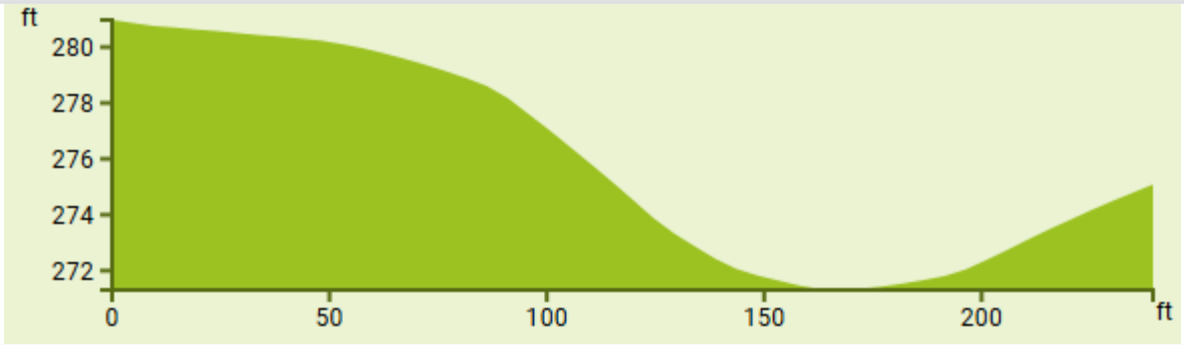
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	25.22	percent
DRNAREA	Area that drains to a point on a stream	65.8	square miles

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	20.3	ft^3/s	38	38
30 Day 2 Year Low Flow	25.5	ft^3/s	33	33
7 Day 10 Year Low Flow	10.2	ft^3/s	51	51



40.72218 -75.24611 271.31 167.60

☑ ***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
Hexavalent Chromium	0.098	0.15	0.033	0.052	0.084	mg/L	0.033	CFC	Discharge Conc ≥ 50% WQBEL (RP)

Summary of Review

Table 6-4

- non-contact	Flow >100,000 GPD	meter pH Temperature	daily grab daily I.S. daily