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.	**PA0012505**
Facility Type	**Industrial**	APS ID	**1138486**
Major / Minor	**Minor**	Authorization ID	**1529153**

Applicant and Facility Information

Applicant Name	**Amrize Cement, Inc.**	Facility Name	**Amrize Whitehall Cement Plant**
Applicant Address	5160 Main Street	Facility Address	5160 Main Street
	Whitehall, PA 18052-1827		Whitehall, PA 18052-1827
Applicant Contact	Laurel Steele	Facility Contact	Laurel Steele
Applicant Phone	(610) 483-5218	Facility Phone	(610) 483-5218
Client ID	26797	Site ID	260809
SIC Code	3241	Municipality	Whitehall Township
SIC Description	Manufacturing - Cement, Hydraulic	County	Lehigh
Date Application Received	May 30, 2025	EPA Waived?	Yes
Date Application Accepted	May 30, 2025	If No, Reason	-

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting renewal of their NPDES permit to discharge up to 2.41 MGD of non-contact cooling water (NCCW) and stormwater from Outfall 001 and 0.80 MGD of NCCW and stormwater from Outfall 002 into the Lehigh River, a TSF/MF designated receiving stream in state water plan basin 02-C (Lower Lehigh River). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. Internal monitoring point (IMP) 102 discharges site stormwater from the coal storage area detention basin to Outfall 002 and rarely discharges. NCCW and stormwater piping is entirely comingled to Outfalls 001 and 002. No chemical additives are used.

On September 5, 2025, DEP received a request to change the permittee's name from Holcim (US), Inc. to Amrize Cement, Inc. The EIN remains unchanged.

This facility falls under the Non-Leaching Cement Manufacturing Point Source Category (40 CFR 411). The pH and TSS limits are based on BPT from Subpart A, Non-Leaching Subcategory. Temperature limits are required as per Subpart A, but are based on a 316(a) Thermal Effects Study. The study showed that in-river temperatures downstream of Outfall 001 are not changed by more than 2 degrees F per hour. Monitoring for the 2-degree change is not required in the permit. Limitations for Δ Temperature (Discharge Temperature subtracted by Intake Temperature) are carried over from the previous permit.

Oil & grease limitations for Outfalls 001 & 002 are based on Chapter 95.2.2(ii). The latest DRBC docket (Docket D-1975-115-3, approved March 14, 2018) was in effect during the previous NPDES permit renewal and the requirements in the docket are carried over in this renewal. The docket required additional limitations Total Dissolved Solids (TDS) and intake monitoring for TSS.

Approve	Deny	Signatures	Date
X		Brian Burden, E.I.T. / Project Manager	September 16, 2025
X		Edward Dudick, P.E. / Environmental Engineer Manager	September 16, 2025

Summary of Review

Data from stream gage 01453000 (Lehigh River at Bethlehem, PA) was used to develop the low flow yield (LFY) value of 0.24 cfs/mi^2. For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA as well as the "measure" tool. Drainage areas were delineated using USGS's StreamStats Interactive Map and elevations were obtained using the elevation profile feature of StreamStats (see Watershed Information attachment). LCA Allentown's surface water withdrawal location is approximately 6.5 miles downstream from Outfalls 001 and 002. Water allocation permit WA39-204C (issued July 8, 1985) allows for 28 MGD to be withdrawn from the Lehigh River. This location and withdrawal allocation are included in the final node in Toxics Management Spreadsheet (TMS) modeling.

Pollutant Groups 1 & 2 sampling results submitted with the permit application were modeled with the TMS. No new limitations or monitoring requirements were recommended. Note: The permittee reported a maximum concentration of 0.181 mg/L for Total Phenols at Outfall 001, however, eDMR results since the beginning of the previous permit term seems to indicate that value was an anomaly, and the concentration was not input into the TMS. The eDMR results show Total Phenols is consistently not detected in the effluent. Quarterly monitoring / reporting requirements for Total Phenols is continued for Outfalls 001 & 002 in this renewal.

Monitoring requirements for Total Iron and TKN are carried over for this renewal. The special condition requiring two stormwater sampling events at 001 and 002 in accordance with sample collection requirements in the standard Part C stormwater condition is also carried over from the previous permit. The footnote reference to *see Part C.IV and C.II.F. in the permit is carried over and refers to the stormwater parameters denoted with an asterisk (TKN, Total Iron). Parts C.IV and C.II.F. give some additional details about sampling for those parameters and the note was included as a reminder. Samples for the monitoring requirements of IMP 102 can be taken at Outfall 002 when IMP 102 is discharging due to safety concerns for the sample collector. All monitoring requirements at IMP 102 are carried over from the previous renewal.

To reduce impingement and entrainment of fish and other aquatic organisms at cooling water intake structures (CWIS), requirements under section 316(b) of the Clean Water Act (CWA) for existing power generating facilities and existing manufacturing and industrial facilities that are designed to withdraw more than 2 MGD of water from waters of the United States and use at least 25% of the water they withdraw exclusively for cooling purposes were promulgated. Facilities that don't meet those thresholds are subject to permit conditions implementing CWA section 316(b) developed by the NPDES Permit Director on a case-by-case basis using BPJ. This facility does not meet the 2 MGD withdrawal threshold, but the following basic CWIS Part C conditions are included in this renewal (see Part C.III):

- Nothing in this permit authorizes a take of endangered or threatened species under the Endangered Species Act.
- Technology and operational measures currently employed at the cooling water intake structures must be operated in a way that minimizes impingement mortality and entrainment to the fullest extent possible
- The permittee shall not alter the location, design, construction or capacity of the intake structure(s) without prior approval of DEP.

The conditions requiring the submittal of information specified in 40 CFR 122.21(r) with their subsequent permit application was not included in the previous renewal for the following reasons (in addition to not meeting the 2 MGD threshold):

- Flow rate through the CWIS was previously measured to be 0.12 fps. Assuming the perforated plate was not installed during that measurement, that flow would increase to approximately 0.24 fps when the plate is installed since the plate is 52% open area. This velocity is well below the EPA's through-screen velocity threshold of 0.5 fps established for larger facilities under the CWA 316(b) Final Rule. The facility would still meet the threshold if 50% of the open screen area was obstructed with sediment. The 0.24 fps estimate based on measurements is more conservative than the value obtained using maximum intake rates and CWIS dimensions:
- 1.78 MGD (maximum intake) x (1.55 cfs / 1 MGD) ÷ (30 ft^2 CWIS opening x 52% open area) = 0.176 fps
- The plate is not typically installed and is only deployed when there are issues with animal (beaver) ingress into the cooling water supply tunnel.
- There are no endangered or threatened species expected to be present near the CWIS.

Summary of Review

- The ends of the intake pipes have a permanent screening device to help prevent entrainment (see Intake Pipe Picture attachment).

- As discussed with the permittee during a site visit on March 12, 2020, there are no internal screening devices inside the plant or anywhere else where entrained animals accumulate.

During the previous renewal, the permittee provided the following information regarding process water: "Approximately 3% of the intake water is consumed. This water is used in our preheater tower for gas conditioning and our raw and finish mills for water sprays to aid in grinding. All of these result in a total loss of the water injected to evaporation, thus there is no discharge of this 3%."

Part C special conditions I.E., I.F., I.G., and I.H are carried over from the previous permit:

- **C.I.E.:** The temperature of the intake water shall be measured at the intake reservoir tank known as the Raw Water Powerhouse Reservoir located in the Raw Water Powerhouse Building. This intake temperature sampling point shall be free of thermal influence from other process water flows entering the reservoir that could affect the delta T.

- **C.I.F.:** The change in temperature (delta T or ΔT) between the intake and the effluent at the outfall must not exceed 13.9°C as a maximum daily limit (MDL). Compliance with the MDL is determined by collecting 24 hourly delta temperature values during a calendar day, beginning at midnight. The ΔT values reflect the temperature difference between the intake and outfall, with each temperature reading to be collected at the top of each hour. The 24 ΔT values are then averaged over the 24-hour period to arrive at a daily average. The daily average for each day must not exceed the 13.9°C MDL.

- **C.I.G.:** The change in temperature between the intake and the effluent must not exceed 9.2°C on a monthly average basis. Compliance with the 9.2°C limit is determined by calculating the sum of the daily average ΔT values for the reporting month and dividing that sum by the number of days in the reporting month. The monthly average ΔT must not exceed the 9.2°C monthly average limit.

- **C.I.H.:** Any untreated overflow from facilities designed, constructed and operated to treat the volume of runoff from materials storage piles which is associated with a 10-year, 24-hour rainfall event shall not be subject to the pH and TSS limitations stipulated in Part A.I.C. for Monitoring Point 002.

The permit renewal application included a summary of three sample results taken for PFOA, PFOS, PFBS, and HFPO-DA at both outfalls. PFOA was detected once in the effluent at Outfall 001 with a maximum concentration of 4.03 ng/L and PFOS was detected once at 71.3 ng/L. The template PFAS Reduction Plan Part C condition is added to the permit which requires completion of a source evaluation within 6 months of the permit effective date. A reduction plan shall then be submitted to DEP within one year of the permit effective date (see Part C.V). The new standard special condition requiring BMPs to address aqueous film forming foam (AFFF) is added to the permit (see Part C.VI).

There are no open WPC NPDES violations for the permittee that would warrant withholding issuance of the final permit. The previously issued permit expires on November 30, 2025 and the renewal application was submitted in a timely manner.

TMS PA0012505 001.pdf
TMS PA0012505 002.pdf
Watershed Information.pdf
1975-115-3.pdf

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*

Summary of Review
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, 002	Design Flow (MGD)	2.41 (001), 0.8 (002)
Latitude	40º 41' 20" / 40º 41' 16"	Longitude	-75º 30' 12" / -75º 30' 13"
Quad Name	Cementon	Quad Code	1341
Wastewater Description:	Noncontact Cooling Water (NCCW) and Stormwater		

Receiving Waters	Lehigh River (TSF/MF)	Stream Code	3335
NHD Com ID	26297489	RMI	23.6
Drainage Area	942	Yield (cfs/mi^2)	0.24
Q_{7-10} Flow (cfs)	225.8	Q_{7-10} Basis	Gage 01453000
Elevation (ft)	280	Slope (ft/ft)	0.0013
Watershed No.	2-C	Chapter 93 Class.	TSF/MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Metals		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	-	Name	-

Background/Ambient Data		Data Source
pH (SU)	7	Default
Temperature (°C)	20	Default
Hardness (mg/L)	100	Default
Other:	-	-

Nearest Downstream Public Water Supply Intake	LCA Allentown		
PWS Waters	Lehigh River	Flow at Intake (cfs)	247
PWS RMI	17.1	Distance from Outfall (mi)	6.5