REGION 3

PHILADELPHIA, PA 19103

Report Title:	Clean Air Act Inspection of Roanoke Cement		
Inspection Date(s):	03/19/2025		
Regulatory Program(s):	State Operating Permit		
Company Name:	Same as below		
Facility Name:	Roanoke Cement		
Facility Location:	2800 N. Hopkins Rd, Richmond, VA 23224		
Latitude:	37.50368	**Longitude:**	-77.44862
County/Parish:	City of Richmond		
ICIS-Air Number:	VA0000005176000092		
Permit Number:	VA0000005176000092		
NAICS Code:	423320	**SIC:**	N/A
DSB ID #:	ECAD-5683		

Facility Representatives: **Point of Contact**

Clifford Bocchicchio, Environmental Manager ☒
Phone: 757-858-6537 Email: cbocchicchio@titanamerica.com
Howard Thomas, Terminal Manager ☐
Phone: 804-233-9669 Email: hthomas@titanamerica.com
Nathan Pichette, Area Environmental Manager ☐
Phone: 804-903-5286 Email: npichette@titanamerica.com

EPA Inspectors:

Steve Ott, Life Scientist, 3ED21
Phone: 215-814-2267 Email: ott.steven@epa.gov
Kyle Krall, Environmental Engineer, 3ED21
Phone: 215-814-2156 Email: krall.kyle@epa.gov
Stafford Stewart, Environmental Engineer, 3ED21
Phone: 215-814-5352 Email: stewart.stafford@epa.gov

State/Local Inspectors:

Adam Gyori, Environmental Specialist
Phone: 804-659-1551 Email: adam.gyori@deq.virginia.gov

EPA Lead Inspector Signature	Ott, Steven Digitally signed by Ott, Steven Date: 2025.03.31 16:11:57 -04'00'	
	Steve Ott	**Date**
	1600 John F Kennedy Blvd Philadelphia, PA 19103-2852	
Supervisor Signature	KRISTEN HALL Digitally signed by KRISTEN HALL Date: 2025.04.01 06:17:13 -04'00'	
	Kristen Hall	**Date**

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I. Introduction

The United States Environmental Protection Agency (EPA) conducted a Clean Air Act (CAA) inspection at Roanoke Cement (Roanoke Cement or Facility) to verify compliance with applicable State and Federal regulations. The Virginia Department of Environmental Quality (VADEQ) was notified of the inspection on March 3rd, 2025 via email. On March 17th, 2025 EPA notified the Facility of the planned inspection via phone and email. EPA emailed a list of records for review to Clifford Bocchicchio, prior to the inspection (see Attachment 1). These records are listed in the Records Review section of the report.

The inspection included an evaluation of the Facility's processes and its compliance with the CAA. All information included in this report is the result of statements by the Facility representatives, materials shown to the inspectors by the Facility representatives, and/or documents provided by the Facility representatives to the inspectors at the time of, or subsequent to, the inspection. In addition, information gathered prior to the inspection from a review of EPA and State records may be included in Section A. Summary of the Facility.

A. Summary of the Facility

The Facility is located at 2800 N. Hopkins Road Richmond, VA. Roanoke Cement receives, stores, and distributes cement and flyash and their NAICS code is 423320. The facility received a minor operating permit (Application #1) from VADEQ issued on August 28th, 2007.

Roanoke Cement is classified as natural minor source for particulate matter and a minor source for all other criteria pollutants and hazardous air pollutants. The Facility is subject to, or potentially subject to the following federal regulations:

- 40 C.F.R. Part 50: National Primary and Secondary Ambient Air Quality Standards

B. Inspection Opening Conference

At 08:30AM on March 19, 2025, EPA inspectors arrived at the Facility for a CAA Inspection and conducted a brief opening conference. Roanoke Cement was represented by Clifford Bocchicchio – Environmental Manager, Howard Thomas – Terminal Manager, and Nathan Pichette – Area Environmental Manager. Also, Adam Gyori - Inspector of VADEQ was present. EPA inspectors, Steve Ott, Kyle Krall, and Stafford Steward presented their credentials and explained the purpose of the visit was to conduct a CAA inspection to determine compliance with their permit and any applicable regulations. Additionally, EPA informed the facility representatives of their right to claim any confidential business information (CBI). At that time, Howard Thomas did not claim any photos or documentation as CBI.

II. Site Activity/Process Description

The site was commissioned by Tarmac in 1963 to distribute cement. The facility was later acquired by Lone Star and was ultimately acquired by Titan America in approximately 2000. The facility operates Monday - Friday, 6am to 4pm, with additional hours being offered depending on client needs. The site has four full time employees, including Mr. Howard Thomas, the terminal manager. The entire property is approximately four acres with about a half-acre dedicated to the equipment that handles cement. The remaining property is partially leased to a trucking company and a large section of the property is unimproved. Titan America, under various subsidiaries operates along the east coast from Florida to New Jersey. Titan America, under various subsidiaries, operates many other facilities in the cement/concrete industries including cement distribution, ready-mix concrete sales, and portland cement plant located in Troutville, VA.

The Facility's process starts with the arrival of cement to the facility via railcar. Railcars are offloaded using either a pneumatic pump or via bottom dumping, which feeds a screw conveyor and is ultimately transferred by a pneumatic pump to the top of the storage silos. Unloading a railcar takes approximately 1-2 hours. The pump used to transfer material is electrically driven and generates hot air, which is useful to the process of transferring cement. Storage consists of two steel silos, each with a capacity of approximately 800 tons. During all stages of the process, particulate matter (PM) emissions are controlled by a baghouse located adjacent to the truck loading area. The truck loading area consists of two loading devices, one operated by gravity and one operated by pneumatics. During the loading process emissions from the loading pipe, and thus the trucks, are also controlled by the baghouse. The Facility is permitted to have an annual throughput of 300,000 tons of cement and 100,000 tons of flyash. The annual throughput limit is calculated on 12-month rolling average, as required by their permit. Due to business demands, the Facility has not received fly ash since 2013, though they are still permitted to do so if business demands change in the future. Annual throughput between calendar years 2021 to 2024 consisted of 70,000 – 80,000 tons of cement/year, with higher summer throughput and lower winter throughput due to seasonal demands.

The facility does not operate any combustion sources and relies on the local electrical grid for daily operations.

The opening conference concluded at 09:00AM.

III. Observations

EPA inspectors were led on a walkthrough of the Facility at 09:05 AM by Howard Thomas, Clifford Bocchichhio, and Nathan Pichette of Roanoke Cement and Adam Gyori of VADEQ was also present for

the walkthrough. EPA inspectors noted photos would be taken during the Facility walkthrough (Attachment 2).

The site walkthrough began at the railcar offloading area (photo 1). Mr. Thomas led EPA inspectors around a railcar that was staged for offloading. This particular railcar was designed to be pneumatically offloaded and was attached to the appropriate hoses. Mr. Thomas also indicated the mechanism by which bottom dumping railcars are offloaded, which includes an arm with a foam-like gasket that seals to the bottom of the railcars and feeds a screw conveyor. During the offloading process, staff were located around the railcar to observe any malfunctions. At 09:15 AM the Facility and EPA inspectors witnessed cement emissions during the initial offloading process and the Facility stopped offloading to identify the cause of emissions. The Facility identified the emissions as coming from a hose with a damaged gasket, and immediately replaced the gasket. Operations resumed and visible emissions were no longer present. EPA was then led to the hot air blower (photo 2), which generates the hot air needed to move cement throughout the transfer process and driven by an electric motor. The Facility noted that they process between 5-10 railcars per day, depending on demand. The Facility also indicated that flyash is not a component of their sales/stored in the silos at this time, and last sales were in 2013. Roanoke Cement indicated that there was not a demand for flyash, though they do maintain the operational capacity to handle the material if needed in the future.

EPA was also brought to the baghouse, which operates as the control device for the offloading and loading processes. Mr. Thomas explained that the baghouse was designed with 80 bags which last anywhere from 3-5 years depending on throughput. Additionally, all cement dust from the control device is pneumatically sent back to the storage silos via a small pump co-located with the baghouse. At 09:23AM EPA inspectors observed the baghouses draft meter, which displayed a reading of 4” of water column across the baghouse. Roanoke Cement’s operating requires that “Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall, as a minimum, the manufacturer’s written requirements or recommendations.” After observing the baghouse, a small garage was observed which contained various replacement parts for the facility, and several pallets of bagged cement. Mr. Thomas indicated that a very small amount of bagged product is sold out of the facility and arrives onsite ready for sale. A brief walkthrough of the remaining property occurred, which included a portion of the property that is leased to a trucking company, that works with Roanoke Cement but is not a subsidiary of Titan America. During this walkthrough, no other emissions sources were observed.

EPA was then led towards the truck loading area, adjacent to the baghouse, where a truck was actively being loaded via an overhead fill pipe. The filling mechanism attaches to the truck forming a seal, preventing fugitive PM emissions. Mr. Bocchicchio explained that trucks take approximately 10 minutes to fill.

The walkthrough concluded at 10:05AM.

IV. Records Review

The records review commenced immediately after the plant walkthrough at 10:05. EPA inspectors reviewed documents requested in the March 17, 2025 email to Clifford Bocchicchio (see Attachment 1). Records were provided at the time of the inspection by Howard Thomas and Nathan Pichette. Below are the records requested and what was provided:

1. Process flow diagram and site plot plan – *various maps of the facility were provided.*
2. Any/all permits issued by Virginia Department of Environmental Quality – *The facility provided their VADEQ operating permit, which is their only permit.*
3. A list of all combustion sources, such as engines, boilers, fire pumps, etc and include the following: - *The facility does not operate any combustion sources onsite.*
    a. Make/model
    b. Horsepower rating or capacity (MMbtu)
    c. Fuel(s) combusted
    d. Year of manufacture
    e. Year of install
    f. Monthly Fuel usage from 2021-current (gallons, MMscf, etc)
    g. Monthly hours of operation from January 2021-curent
    h. Records of any maintenance/tune-ups from January 2021-current
4. A list of all particulate matter emission sources and include:
    a. Name of emissions source, as referenced in permit or as used onsite. - *the operating permit was provided, which lists all emission sources*
    b. Identify what material is emitted – *the operating permit was provided, which lists all emissions*
    c. Related control devices and rated efficiency – *The facility provided manufacturer literature for the baghouse.*
5. Copies of any stack tests conducted on any engines/boilers to determine emissions rate, control efficiency or for compliance demonstrations, etc conducted at the facility since January 2010. – *the facility does not have combustion sources and is not required to performance test the baghouse.*
6. Annual emission calculations from calendar year 2021 to current. – *the facility provided emissions data, and indicated their emissions factors are based on AP-42.*
7. Annual facility throughput of flyash and dry cement (tons/month) from January 2020-current, please provide this information in an excel sheet. - *records of monthly throughput were provided, and annual throughput averaged to 70,000 – 80,000 tons/year. This record was also request electronically.*

In addition to the records reviewed above, EPA inspectors requested to review records of baghouse maintenance and monitoring activities. Mr. Thomas provided relevant documentation, and inspections of the baghouse pressure drop gauge occur on a regular basis.

V. Closing Conference

After the records review, EPA inspectors, Mr. Thomas, Mr. Bocchicchio, and Mr. Pichette representing Roanoke Cement along with VADEQ inspector Adam Gyori had a brief closing conference to ask additional questions and discuss observations. The EPA inspectors noted that the investigation is on-going, and any areas of concern identified in the final report do not necessarily reflect a violation or deviation, rather, they are areas that will require further investigation. EPA also noted that they would issue an inspection report within 60 days, with a copy to the State. Simultaneously, EPA will perform a detailed review of records and may have additional questions. The inspection concluded at 10:27 AM.

No potential issues were identified during the inspection.

VI. List of Attachments

Attachment 1:	Email correspondence to Clifford Bocchicchio of records requested to review during inspection
Attachment 2:	Photo Log