

INDUSTRIAL FACILITY STORMWATER INSPECTION

Inspection Date(s):	11/15/2023	
Time:	Entry: 11:00 AM	Exit: 2:00 PM
Weather Conditions:	Cloudy with temperatures of approximately 60° F	
Media/Program:	Water – CWA § 301, 402 – Industrial SW/NEC	
Operator Name:	Vulcan Materials Company	
Facility or Site Name:	Norfolk Sales Yard	
Permit ID or Tracking #:	N/A. No Clean Water Act permit	
SIC Code:	5032: Brick, Stone, and Related Construction Materials	
Facility Address:	954 Ballentine Blvd	
(city, state, zip code)	Norfolk, VA, 23504	
Geographic Coordinates:	36.85143°, -76.24785°	
Mailing address:	954 Ballentine Blvd	
(city, state, zip code)	Norfolk, VA, 23504	
County:	Independent City - City of Norfolk	
Regular Days/Hours of Operation:	Monday – Friday, 7:00 AM – 5:00 PM	
# of Employees at location:	8	
Size of Facility (in acres):	Approximately 11	
Receiving Water(s):	The City of Norfolk Municipal Separate Storm Sewer System (MS4) and Moseley Creek	
Date facility est. @ location:	At least 30 - 40 years according to the Facility representative	
Onsite Representative:		
Name: Markus Giacomani	Title: Area Supervisor	Phone #: (757) 297-2293
	Email: giacomani@vmcmail.com	
Authorized Official: →	Contacted? ☒ Yes ☐ No	
Name: Markus Giacomani	Title: Area Supervisor	Phone #: (757) 297-2293
	Email: giacomani@vmcmail.com	
Additional Personnel Participating in Inspection:		
Name: N/A	Title: N/A	
Inspector(s):		
Chris Pardo (PG Environmental)	Title: Lead Inspector	Phone: (703) 398-4251
Taylor Fontaine (PG Environmental)	Title: Inspector	Phone: (703) 956-1977
Sean Ireland (EPA)	Title: Inspector	Phone: (202) 564-2923
Rachel Olugbemi (EPA)	Title: Inspector	Phone: (202) 564-2081
Inspection Report Author:		
Name: Chris Pardo (PG Environmental)	Signature: <i>Chris Pardo</i>	Date: 1/23/2024
Supervisor Review:		
Name: Sean Ireland (EPA, Senior Inspector)	Signature: <i>Sean Ireland</i>	Date: 1/23/2024

SECTION I – INTRODUCTION

Purpose of the Inspection

The purpose of the inspection was to determine compliance with the industrial stormwater requirements under §§ 301 and 402(p) of the Clean Water Act and its implementing regulations found at 40 CFR Part 122.26. The inspection was unannounced and consisted of interviewing facility representatives, recording field observations, and taking photographs to document site conditions throughout the facility at the time of the inspection.

Opening Conference

- 1) Brief narrative documenting those present, introductions, presentation of credentials, and explanation of the purpose of the inspection.

On November 15, 2023, U.S. Environmental Protection Agency (EPA) contractor, PG Environmental, conducted an industrial stormwater non-filer inspection at Vulcan Materials Company – Norfolk Sales Yard located in Norfolk, Virginia (hereinafter the Facility). Sean Ireland of U.S. EPA (EPA) Headquarters, Rachel Olugbemi of EPA Headquarters, Taylor Fontaine of PG Environmental, and Chris Pardo of PG Environmental (collectively the EPA Inspection Team) met with the Facility representative and conducted an opening conference upon arrival. The EPA Inspection Team explained to Markus Giacomani (Area Supervisor) that the purpose of the inspection was to document the Facility's industrial activity and evaluate the need for requirement to apply for a National Pollutant Discharge Elimination System Permit (NPDES Permit). At the time of the inspection, the Facility did not have coverage under the VPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Permit).

Weather conditions were sunny with temperatures approximately 60° F. According to precipitation data from the National Oceanic and Atmospheric Administration (NOAA), the Norfolk, Virginia area received no rain the morning of the inspection.

- 2) Credentials presented to: Markus Giacomani (Area Supervisor)
- 3) Facility acknowledged receiving previous outreach materials or correspondence on Permit requirements? ☐ Yes ☒ No Describe:

The Facility representative stated that he was unaware of any previous outreach regarding the requirement to apply for and obtain a NPDES Permit.

The Facility representative stated Vulcan's understanding is that the Facility, which was engaged in the wholesale distribution of aggregate materials, was classified as SIC code 5032 and did not require an industrial stormwater permit. A company memo to this effect was provided to the EPA Inspection Team via email on November 20, 2023.

- 4) Facility has been individually notified by permit authority or EPA that it is subject to stormwater requirements? ☐ Yes ☒ No Describe:

The Facility representative stated that he was unaware of any notification by EPA or the State of Virginia regarding stormwater permit requirements.

FACILITY'S OPERATION & PRODUCT DESCRIPTION

Description of business and industrial activities occurring throughout the site. (Include operator's description and note any documentation that further establishes SIC code (permit applications, reports, business registries, website...)).

The Facility is in the City of Norfolk, Virginia. The Facility is bordered by Ballentine Blvd to the west, Connector Road to the north, railroad tracks belonging to the Norfolk Southern Railway network to the east, and a warehouse owned by the Norfolk Redevelopment and Housing Authority to the south. The Facility has a truck scale house and office, a warehouse for servicing vehicles, a station for unloading raw material off freight cars, a large conveyer system for moving aggregate material, a pug mill, and various large piles of aggregate materials (refer to Appendix B, Photographs 1 through 17, 22, 24, 37 through 38, 40).

The Facility has a gravel berm that runs along the northern border and most of the Facility's western border (refer to Appendix B, Photographs 33, 35, and 36). The remainder of the western border is comprised of the large warehouse used for vehicle maintenance and the Facility entrance/exit. A perimeter concrete wall runs along the eastern half of the Facility's southern border (refer to Appendix B, Photograph 16) while the western half is unwallled but had a concrete curb with a layer of shrubs/trees above the lip of the curb (refer to Appendix B, Photograph 11). Railroad tracks extend north-south along the eastern boundary.

According to the Facility representative, the Facility typically receives aggregate materials via railcar (e.g., #21A gravel, #57 stone, #8 stone/gravel, masonry sand, etc.), but lightweight materials may be trucked in as needed. The materials are offloaded from the railcars via an excavator and conveyer system. Aggregate is stockpiled for sale to both commercial and non-commercial customers. According to the Facility representative, all aggregate loading, unloading, sorting, and pug mill operation occur outside and are exposed to stormwater.

The Facility representative stated that the Facility is primarily a sales yard, but the on-site pug mill is used occasionally to crush larger stones into smaller pieces.

Other industrial facilities owned/operated by same business entity? ☒ Yes ☐ No Describe:

The Facility is owned/operated by Vulcan Materials Company, a national organization with locations across the southern United States including 69 facilities in Virginia according to the Vulcan website, <https://www.vulcanmaterials.com/construction-materials/facilities-map/find-by-state>.

SECTION II – OBSERVATIONS

SITE EVALUATION

Pollutant Sources	
Loading/Unloading Operations	The Facility has one (1) main entrance from Ballentine Blvd (refer to <u>Appendix B, Photograph 2</u>). Aggregate is delivered to the Facility by truck and railcar.
	The EPA Inspection Team observed active railcar unloading operations. Upon entering the Facility, railcars are pushed over a trapezoidal hopper and washed out with aggregate material inside. Aggregate material, along with any wash water, exits underneath the rail cars and is caught in the hopper and wash pit (refer to <u>Appendix B, Photographs 24 and 25</u>). This wash water drains towards the sump in

SITE EVALUATION	
	the center of the Facility where it is then pumped into the two western settling ponds. The Facility representative stated lightweight materials may be delivered by truck.
Industrial Manufacturing/ Processing Operations	The EPA Inspection Team observed that the Facility's primary business is aggregate sales. The Facility has a pug mill to crush larger pieces of stone into smaller pieces that are mixed with water and cement to be used for road base (refer to Appendix B, Photograph 22).
Industrial Machinery & Equipment Storage	The Facility representative stated that the Facility keeps 10 to 12 vehicles onsite. The EPA Inspection team observed approximately two (2) pickup trucks, four (4) dump trucks, two (2) loaders, and one (1) small excavator. The excavator was not operational at the time of the inspection.
Storage of Industrial Materials or Products	The EPA Inspection Team observed stockpiles of rock, crushed, stone, and sand. The stockpiles were uncovered and exposed to stormwater (refer to Appendix B, Photographs 16 and 17).
Liquid Storage (e.g., Tanks, Liquid Storage Drums)	The EPA Inspection Team observed one (1) 250-gallon tote containing SikaTard-440 used as a hydration controlling admixture to control the hydration of cement (refer to Appendix B, Photograph 23). Liquid waste and fuel were also stored onsite. See the Waste Storage/Disposal Areas and Fueling Stations/Equipment Maintenance Area & Cleaning Areas sections below.
Waste Storage/Disposal Areas (solid and/or hazardous)	The EPA Inspection Team observed six (6) 55-gallon drums of which four (4) were empty and two (2) contained waste oil and "bad gas" (refer to Appendix B, Photograph 44) and a 500-gallon, double-walled storage tank which contained waste oil (refer to Appendix B, Photographs 49 and 50).
Waste Treatment Facilities (e.g., Pretreatment Systems)	None
Fueling Stations/Equipment Maintenance Areas & Cleaning Areas	The EPA Inspection Team observed one (1) 250-gallon tote containing diesel used to fuel onsite equipment located inside the large warehouse (refer to Appendix B, Photograph 51).
Sediment & Erosion Controls	The EPA Inspection Team observed a gravel berm that extended along the northern boundary and most of the western boundary of the Facility (refer to Appendix B, Photographs 33, 35, and 36) and a perimeter wall on the southern boundary of the Facility (refer to Appendix B, Photograph 16). The EPA Inspection Team observed four (4) settling ponds onsite. The ponds capture and detain stormwater to settle out sediment and other suspended solids (refer to Appendix B, Photographs 18, 28, 34, 40 through 43, 45) Additionally, the EPA Inspection Team also observed one (1) sump which receives wash out water from underneath the railcar unloading station (refer to Appendix B, Photographs 26 and 27).

SITE EVALUATION	
	The EPA Inspection Team observed the sump and settling ponds were full of sediment. See the <u>Outfall, Stormwater Discharge, & Receiving Water Observation</u> section below for summary of settling pond discharge processes/destinations. According to the Facility representative, the Facility had installed a boom on the influent structure to the western settling ponds to reduce water flow velocity and minimize resuspension of settled sediment and particulates (refer to <u>Appendix B, Photograph 40</u>). The Facility representative also stated water from the two western settling ponds was used for onsite dust control purposes. The EPA Inspection Team observed inlet protection in the form of a metal grate around the curb inlet located in the southwestern portion of the Facility. The inlet was covered with a filter fabric silt protector (refer to <u>Appendix B, Photograph 14</u>).
Spills/Leaks Handling	The EPA Inspection Team observed petroleum staining on the ground surface and oil sheen in pooled stormwater in the southwest portion of the Facility, upgradient of a curb inlet (refer to <u>Appendix B, Photographs 10, 12, and 15</u>). The EPA Inspection Team observed an oil spill and dry sweep product next to the 250-gallon tote that contained diesel fuel inside the garage door to the Facility's southwestern warehouse (refer to <u>Appendix B, Photograph 51</u>).
Outside Shelters	☐ Temporary (Date Established _____) ☒ Permanent The EPA Inspection Team observed at least six (6) outside shelters at the Facility. One (1) is a large warehouse used for vehicle maintenance and facility administration, one (1) is the truck scale/office, one (1) is the operator building adjacent to the railcar unloading areas, and three (3) sheds were next to the sump, truck scale, and western settling ponds.
Evidence of non-stormwater sources/discharges (allowable if permitted under MSGP)?	The EPA Inspection Team did not observe clear evidence of non-stormwater sources/discharges that would have been allowable if permitted under the VPDES General Permit for Stormwater Discharges Associated with Industrial Activity.
Evidence of process wastewater sources/discharges?	The Facility representative stated that wash water falls into the trapezoidal hopper underneath the unloading station and drains into the sump where it is then pumped into the two western settling ponds (refer to <u>Appendix B, Photographs 25, 26, 27, and 41</u>). The EPA Inspection Team observed wash water from the rail cars pooling around the unloading station (refer to <u>Appendix B, Photographs 24 and 25</u>). The EPA Inspection Team observed two (2) truck tire washing racks. Wash water is collected and conveyed into the two western settling ponds. The Facility representative stated that the water from the two western settling ponds is pumped out and recycled for use in the tire washing racks and for dust control purposes (refer to <u>Appendix B, Photographs 37 through 41</u>). The EPA Inspection Team observed turbid water in the two western settling ponds due to the above-mentioned process wastewater operations. Attached to the westernmost pond was an overflow structure through which wastewater flows towards Moseley Creek (refer to <u>Appendix B, Photographs 42, 43, and 45</u>). See the

SITE EVALUATION	
	section labeled <u>Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water or MS4</u> below for more information on the discharge pathway from the two western settling ponds.
OUTFALL, STORMWATER DISCHARGE & RECEIVING WATER OBSERVATIONS	
Number and description of each potential Stormwater Discharge Point from the Facility	The EPA Inspection team observed six (6) discharge points from the Facility. Discharge Point #1 – A settling pond in the southeastern corner of the Facility collects stormwater from the southeastern corner of the Facility. According to Facility maps, the settling pond’s overflow structure discharges offsite to the southeast via underground pipes with stormwater eventually flowing into Moseley Creek (refer to <u>Appendix B, Photograph 19 and Appendix C</u>). See the section below labeled <u>Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water of MS4</u> for further information on the discharge pathway. Discharge Point #2 – A settling pond in the northeastern corner of the Facility collects stormwater from the northeastern corner of the Facility. According to Facility maps, the settling pond’s overflow structure discharges offsite to the northwest and into the City of Norfolk’s municipal separate storm sewer system (MS4) (refer to <u>Appendix B, Photographs 28, 54, 55 and Appendix C</u>). Discharge Point #3 – The two western settling ponds collect water from the majority of the Facility, excluding the drainage areas upgradient from Discharge Points #1 and #2, including stormwater from across approximately 7 acres of impervious surface as well as the process wastewater described above in the section labeled <u>Evidence of process wastewater sources/discharges</u>. According to Facility maps, the westernmost pond’s overflow structure discharges offsite to the southeast via underground pipes with stormwater/process wastewater eventually flowing towards Moseley Creek (refer to <u>Appendix B, Photograph 43 and Appendix C</u>). See the section below labeled <u>Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water or MS4</u> for further information on the discharge pathway. Discharge Point #4 – A curb inlet in the southwestern portion of the Facility collects stormwater from the southwestern portion of the Facility. According to Facility maps, this curb inlet conveys stormwater via underground pipes offsite to the southeast and eventually flows towards Moseley Creek (refer to <u>Appendix B, Photographs 13, 14 and Appendix C</u>). See the section below labeled <u>Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water or MS4</u> for further information on the discharge pathway. Discharge Points #5 & #6 – The EPA Inspection Team observed two (2) unprotected City of Norfolk MS4 curb inlets on Ballentine Boulevard, adjacent to, and downgradient from, the Facility’s entrance (refer to <u>Appendix B, Photographs</u>

SITE EVALUATION	
	4, 5, and 7 through 9). Stormwater from the southwest corner of the Facility by the entrance/exit would flow out along the curbing and into these two curb inlets.
Evidence of pollutants migrating offsite (stains, deposits, ponding) at discharge points, into Receiving Waters or in MS4	By Discharge Point #3, The EPA Inspection Team observed noticeably cloudy water with suspended sediments in the two western settling ponds (refer to <u>Appendix B, Photographs 41, 43, 45</u>). The EPA Inspection team observed a stormwater manhole located about 10-15 feet to the north of one of the western ponds on the Facility property. The EPA Inspection Team lifted the lid covering the stormwater manhole and observed turbid water with a high concentration of suspended sediments (refer to <u>Appendix B, Photographs 46 through 48</u>). Based off Facility maps, this manhole was connected to the underground pipe system which received water from Discharge Point #3. This collection system is routed between the two western settling ponds to the southeast and eventually towards Moseley Creek (refer to <u>Appendix C</u>). See the section below labeled <u>Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water or MS4</u> for further information on the discharge pathway. By Discharge Point #4, The EPA Inspection Team observed sediment deposits around the curb inlet which discharges stormwater offsite to the southeast and eventually leads towards Moseley Creek. The EPA Inspection Team observed sediment accumulating on the curb, around the curb inlet, and around the mouth of the curb inlet behind the protective metal grate. The sediment deposits were similar in color to the industrial rock/aggregates the Facility stored onsite. The EPA Inspection Team also observed industrial material sediments accumulating over the lip of the curb on the grass/dirt over the curb inlet. The EPA Inspection Team observed muddy/wet sediments around the grate of the curb inlet (refer to <u>Appendix B, Photographs 13 and 14</u>). By the Facility entrance, the EPA Inspection Team observed track-out of industrial material sediments originating from the Facility onto Ballentine Boulevard. The EPA Inspection Team observed these sediments accumulating around Discharge Points #5 & #6 which connect to the Norfolk MS4 and are directly adjacent to either side of the Facility entrance (refer to <u>Appendix B, Photographs 3 through 9</u>).
Evidence of Non-stormwater Discharges leaving site (authorized or unauthorized)	Non-stormwater sources, including process wastewater from washing the loaded railcars, tire wash rack water, and water originating from the sump are all directed to the two western settling ponds eventually conveying through Discharge Point #3 . According to Facility maps, Discharge Point #3 discharges offsite to the southeast to a collection system that further connects south to a conveyance along the railroad tracks that leads south towards Moseley Creek.
Description of general gradients/slopes onsite, all apparent discharge points, and discharge pathway from Facility to Receiving Water or MS4 (storm	Discharge Pathway towards Moseley Creek: • Discharge Point #1 – Stormwater from the aggregate piles in the southeastern portion of the Facility flows downgradient to the southeast into the southeast settling pond. The Facility representative stated that stormwater in this settling pond had not, to his knowledge, ever risen high enough to spill into the

SITE EVALUATION

drains, channel, swale, ditches, driveway, pipes, & etc.)

overflow structure. The EPA Inspection Team, however, observed a debris line on top of the overflow structure showing evidence of discharge (refer to Appendix B, Photographs 18 and 19). According to Facility maps, water from this overflow structure flows downgradient to the east via underground pipe system.

- **Discharge Point #3** – Excess stormwater from the northeast settling pond flowed downgradient south/west along the gravel berm into the two western settling ponds. In addition, process wastewater from the central sump was pumped into the two western settling ponds as well as wash water from the tire wash racks. The EPA Inspection Team observed turbid water with suspended sediments in the two western settling ponds and similar turbid water in the stormwater manhole directly to the north of one of the western settling ponds (refer to Appendix B, Photographs 41 and 45 through 48). According to Facility maps, the overflow structure on the westernmost settling pond flows downgradient to the southeast via underground pipe system.
- **Discharge Point #4** – Stormwater from the southwestern portion of the Facility flows downgradient into the curb inlet located at the southwestern corner of the Facility. The EPA Inspection Team observed sediment accumulated in and around this curb inlet (refer to Appendix B, Photographs 13 and 14). According to Facility maps this curb inlet flows downgradient to the east via underground pipe system.

Based off Facility maps, stormwater/process wastewater from **Discharge Points #1, #3, and #4** are all connected to the same underground collection system leading to the southeast corner of the Facility (refer to Appendix C). All three discharge points flow via the underground pipe system downgradient to the east/southeast until reaching the railroad tracks, at which point, topographic maps illustrate flow is directed southwards. This underground pipe system daylights along the southbound railroad tracks and flow continues south along the conveyance adjacent to the railroad tracks until spilling into Moseley Creek about 1,600 feet to the south of the Facility (refer to Appendix B, Photographs 56 through 58).

Discharge Pathway to Norfolk MS4:

- **Discharge Point #2** – Stormwater from the train track area in the northeastern corner of the Facility flows downgradient to the west into the northeastern settling pond (refer to Appendix B, Photograph 34). According to Facility maps, the northeastern settling pond's overflow structure discharges northwest towards a stormwater drain and manhole located across the street and outside the Facility property. Facility maps confirmed this stormwater drain flows downgradient to the west and connects to the City of Norfolk's MS4 system (refer to Appendix C).
- **Discharge Points #5 & #6** – Stormwater from the southwest portion of the Facility including near the Facility entrance and visitor parking lot flows downgradient to the west and into the two adjacent unprotected curb inlets located on Ballentine Boulevard. Sediment track-out was observed around

SITE EVALUATION	
	Discharge Points #5 & #6 where the curb inlets connect to the City of Norfolk's MS4 system (refer to <u>Appendix B, Photographs 3 through 9</u>).

SECTION III – AREAS OF CONCERN

- 1) The EPA Inspection Team observed petroleum staining on the ground surface and oil sheens on pooled water in the southwest portion of the Facility. These were located upgradient of the curb inlet on the Facility property which conveys stormwater towards Moseley Creek.
- 2) The EPA Inspection Team observed aggregate and sediment accumulation around the curb inlet (**Discharge Point #4**) on the Facility property which conveys stormwater towards Moseley Creek. The only inlet protection observed, a small metal grate, had not been maintained and was not adequate for preventing industrial sediments from reaching the curb inlet.
- 3) The EPA Inspection Team observed sediment tracking originating from the Facility onto Ballentine Blvd. These sediment tracks were near the two unprotected MS4 curb inlets (**Discharge Points #5 and #6**) located on either side of the Facility entrance and the EPA Inspection Team observed rocks/sediment by the mouth of each curb inlet.
- 4) The EPA Inspection Team observed process wastewater from railcar unloading and the tire wash racks conveying into the two western settling ponds. The boom placed at the influent structure of the settling ponds was insufficient in mitigating the resuspension of settled sediments within the two ponds.
- 5) The EPA Inspection Team observed evidence of pollutants migrating offsite from the two western settling ponds. The stormwater manhole adjacent to one of the western settling ponds contained the same turbid water present within the two western settling ponds. During heavy rain events, the overflow structure (**Discharge Point #3**) attached to the western most pond would convey this turbid water towards Moseley Creek.
- 6) The EPA Inspection Team observed evidence of turbid water discharges at both the northeastern settling pond and the southeastern settling pond. Evidence of turbid discharge from the northeastern settling pond into the MS4 was observed due to the dried sediment buildup on the overflow structure (**Discharge Point #2**). Evidence of discharge from the southeastern settling pond towards Moseley Creek was observed due to the presence of debris overtopping the overflow structure (**Discharge Point #1**).

SECTION IV – CLOSING CONFERENCE

Attendees: Markus Giacomani, Sean Ireland, Rachel Olugbemi, Taylor Fontaine, and Chris Pardo

At the conclusion of the inspection, the EPA Inspection Team held a closing conference with the Facility representative to discuss preliminary observations. The EPA Inspection Team explained that there was evidence of discharge from the Facility to the MS4 system and the Facility may need to obtain a Permit regardless of the SIC code.

On November 20, 2023, after the inspection, a Facility representative explained that the Facility does not have a Permit and based on the industrial activity, does not need a Permit. The Facility representative provided the EPA Inspection Team with a document dated November 20, 2009 which claimed aggregate sales yards are not required to obtain a federal or state stormwater Permit. Refer to Appendix C for a copy of the provided document.

SECTION V – LIST OF APPENDICES

Appendix A – Aerial Map

Appendix B – Photograph Log

Appendix C – Exhibit Log