



188 Summerfield Court, Suite 201  
Roanoke, Virginia 24019  
Telephone (540) 992-3674  
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March 29, 2016

Dean Carroll, Permit Engineer  
North Carolina Department of Environment & Natural Resources  
Division of Air Quality - Wilmington Regional Office  
127 Cardinal Drive Ext.  
Wilmington, NC 28405

RE: **Application for Permit Modification**  
Air Quality Permit No. 07300R11; Facility ID: 6500296  
Carolinas Cement Company LLC  
Castle Hayne, New Hanover County, North Carolina

Dear Mr. Carroll:

Attached is an application to modify current Air Quality Permit No. 07300R11 issued on August 29, 2013 for the Carolinas Cement Company LLC facility near Castle Hayne, North Carolina. The modification removes the proposed equipment for the Portland cement plant. The facility will continue to operate as a cement terminal with the existing three emission sources previously permitted under Permit No. 07300R08.

As discussed, the application consists of Forms A1, A2/A3, and D1. It is understood that you have the most recent Emissions Inventory (submitted in February 2016) as well as previously submitted information on the existing air pollution control devices. It is noted that the potential emissions included on Form D1 are based on the same emission factors from AP-42 used for the emission inventories. The 2006 permit application that originally included the existing equipment referenced a design capacity of 150,000 tons per year throughput. That design capacity throughput with the AP-42 factors yields uncontrolled emissions for PM10 of 93.8 tpy and controlled emissions of 2.0 tpy (see attached emission calculations after Form D1), which makes this facility eligible for a Small Permit classification. The application fee of \$50 is enclosed.

Thank you for your assistance on this permit application. If you have any questions or need additional information, please call me at (540) 512-7685 or e-mail me at [jwillis@titanamerica.com](mailto:jwillis@titanamerica.com).

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'J S Willis', is written over a faint circular stamp.

James S. Willis, III, P.E., P.G.  
Director Corporate Environmental

Attachments:  
NC DAQ Forms A1, A2/A3, D1  
Emissions Calculations  
Application Fee.

A Titan Group Company

# FORM A1

## FACILITY (General Information)

REVISED 05/25/12

NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate

A1

### NOTE- APPLICATION WILL NOT BE PROCESSED WITHOUT THE FOLLOWING:

- ☐ Local Zoning Consistency Determination (if required)
 ☐ Facility Reduction & Recycling Survey Form (Form A4)
 ☒ Application Fee  
☒ Responsible Official/Authorized Contact Signature
 ☒ Appropriate Number of Copies of Application
 ☐ P.E. Seal (if required)

### GENERAL INFORMATION

Legal Corporate/Owner Name: Carolinas Cement Company LLC

Site Name: Carolinas Cement Company LLC

Site Address (911 Address) Line 1: 6411 Ideal Cement Road

Site Address Line 2: PO Box 37

City: Castle Hayne

State: North Carolina

Zip Code: 28429

County: New Hanover

### CONTACT INFORMATION

#### Permit/Technical Contact:

Name/Title: James S. Willis, III, PE, PG / Director Corp. Environmental

Mailing Address Line 1: 188 Summerfield Court, Suite 201

Mailing Address Line 2:

City: Roanoke State: VA Zip Code: 24019

Phone No. (area code) (540) 512-7685 Fax No. (area code) (540) 283-9530

Email Address: [jwillis@titanamerica.com](mailto:jwillis@titanamerica.com)

#### Facility/Inspection Contact:

Name/Title: Dave Kreitinger/Terminal Manager

Mailing Address Line 1: 6411 Ideal Cement Road

Mailing Address Line 2:

City: Castle Hay State: North Carolina Zip Code: 28429

Phone No. (area code) (910) 675-2264 Fax No. (910) 675-2260

Email Address: [dkreitinger@titanamerica.com](mailto:dkreitinger@titanamerica.com)

#### Invoice Contact:

Name/Title: Donald Ingerson/Vice President

Mailing Address Line 1: 188 Summerfield Court, Suite 201

Mailing Address Line 2:

City: Roanoke State: VA Zip Code: 24019

Phone No. (area code) (610) 390-4345

City: Norfolk State: VA Zip Code: 23502

Phone No. (area code) (757) 858-6537 Fax No. (area code) (757) 853-1223

Email Address: [dington@titanamerica.com](mailto:dington@titanamerica.com)

Email Address: [cbocchicchio@titanamerica.com](mailto:cbocchicchio@titanamerica.com)

### APPLICATION IS BEING MADE FOR

- ☐ New Non-permitted Facility/Greenfield
 ☒ Modification of Facility (permitted)
 ☐ Renewal with Modification  
☐ Renewal (TV Only)

### FACILITY CLASSIFICATION AFTER APPLICATION (Check Only One)

- ☐ General
 ☒ Small
 ☐ Prohibitory Small
 ☐ Synthetic Minor
 ☐ Title V

### FACILITY (Plant Site) INFORMATION

Describe nature of (plant site) operation(s): Facility ID No.: 6500296

Receipt by rail car and/or truck, with off-loading to storage silos, and distribution off-site by truck of Portland cement.

Primary SIC/NAICS Code: 5032/421320

Current/Previous Air Permit No. 07300R11 Expiration Date 10/1/2016

Facility Coordinates: Latitude: 34-22-33 N

Longitude: 77-50-45 W

Does this application contain confidential data? YES ☐ NO ☒

\*\*\*If yes, please contact the DAQ Regional Office prior to submitting this application.\*\*\* (See Instructions)

### PERSON OR FIRM THAT PREPARED APPLICATION

Person Name: James S. Willis, III, PE, PG / Director Corp. Environmental

Firm Name: Titan America LLC

Mailing Address Line 1: 188 Summerfield Court, Suite 201

Mailing Address Line 2:

City: Roanoke

State: VA

Zip Code: 24019 County: Roanoke

Phone No. (area code) (540) 512-7685 Fax No. (area code) (540) 283-9530

Email Address: [jwillis@titanamerica.com](mailto:jwillis@titanamerica.com)

### SIGNATURE OF RESPONSIBLE OFFICIAL/AUTHORIZED CONTACT

Name (typed): Donald Ingerson

Title: Vice President

X Signature(Blue Ink):

Date:

Attach Additional Sheets As Necessary

# FORMs A2, A3

## EMISSION SOURCE LISTING FOR THIS APPLICATION - A2

### 112r APPLICABILITY INFORMATION - A3

REVISED 04/10/07

NCDENR/Division of Air Quality - Application for Air Permit to Construct/Operate

**A2**

EMISSION SOURCE LISTING: New, Modified, Previously Unpermitted, Replaced, Deleted			
EMISSION SOURCE ID NO.	EMISSION SOURCE DESCRIPTION	CONTROL DEVICE ID NO.	CONTROL DEVICE DESCRIPTION
<b>Existing Equipment To Remain Be ADDED By This Application (New, Previously Unpermitted, or Replacement)</b>			
ES-1	Railcar/truck unloading system (screw/pneumatic) in partially enclosed	CD-P1	Fabric filter with 339 SF filter area
ES-R33	Cement screw conveyor/truck loadout	CD-P30	Fabric filter with 448 SF filter area
ES-4	One cement silo (2,200 tons est. capacity)	CD-P43	Fabric filter with 540 SF filter area
<p>The above equipment had been previously permitted under Permit 07300R08. Under subsequent permits R09, R10 and R11 emission sources ES-R33 and ES-4 would have remained after the proposed cement plant had been built and emission source ES-1 would have been taken out of service. With the removal of all proposed equipment for the cement plant (see below), the facility will continue with these three emission sources as previously permitted in Permit 07300R08.</p>			
<b>Existing Permitted Equipment To Be MODIFIED By This Application</b>			
<b>Equipment (not constructed) To Be DELETED By This Application</b>			
FQ	Quarry crushing and handling	NA	NA
RMHS	Raw material unloading, handling, and storage	NA	NA
RMKF	Raw mill and kiln feed	CD5-13	Fabric filters
COAL	Coal/coke handling and storage	CD1-4, 14-18	Fabric filters
KS	Kiln System	CD44N	SNCR
		CD44A,B,C	Fabric filters
		CD44D	ACI/Fabric filter
		CD44S	Wet Scrubber
CHS	Clinker handling and storage	CD19-21	Fabric filters
FM	Finish mills	CD22-31, 45-47	Fabric filters
CHSL	Cement handling, storage, and loadout	CD32-34, 40-43	Fabric filters
GEN*	Emergency generator	NA	NA
SP	Storage piles	NA	NA
MINE	Mining operations	NA	NA
PLTRD	Plant roads	NA	NA
QURD	Quarry roads	NA	NA
* - Note: There are no other existing generators at the facility.			

112(r) APPLICABILITY INFORMATION		<b>A 3</b>
<p>Is your facility subject to 40 CFR Part 68 "Prevention of Accidental Releases" - Section 112(r) of the Federal Clean Air Act? <span style="float: right;">Yes / <b>No</b></span></p> <p>If No, please specify in detail how your facility avoided applicability: <span style="float: right;">Does not store or process chemicals subject to Section 112(r)</span></p>		
<p>If your facility is Subject to 112(r), please complete the following:</p> <p>A. Have you already submitted a Risk Management Plan (RMP) to EPA Pursuant to 40 CFR Part 68.10 or Part 68.150?</p> <p style="margin-left: 40px;">Yes      No      Specify required RMP submittal date: _____ If submitted, RMP submittal date: _____</p> <p>B. Are you using administrative controls to subject your facility to a lesser 112(r) program standard?</p> <p style="margin-left: 40px;">Yes      No      If yes, please specify: _____</p>		

**Attach Additional Sheets As Necessary**

## FACILITY-WIDE EMISSIONS SUMMARY

D1

## CRITERIA AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

	EXPECTED ACTUAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)	POTENTIAL EMISSIONS (BEFORE CONTROLS / LIMITATIONS)	POTENTIAL EMISSIONS (AFTER CONTROLS / LIMITATIONS)
<b>AIR POLLUTANT EMITTED</b>	tons/yr	tons/yr	tons/yr
PARTICULATE MATTER (PM)	7.5	193.4	7.5
PARTICULATE MATTER < 10 MICRONS (PM <sub>10</sub> )	2.0	93.8	2.0
PARTICULATE MATTER < 2.5 MICRONS (PM <sub>2.5</sub> )	N/A	N/A	N/A
SULFUR DIOXIDE (SO <sub>2</sub> )	N/A	N/A	N/A
NITROGEN OXIDES (NO <sub>x</sub> )	N/A	N/A	N/A
CARBON MONOXIDE (CO)	N/A	N/A	N/A
VOLATILE ORGANIC COMPOUNDS (VOC)	N/A	N/A	N/A
LEAD	N/A	N/A	N/A
OTHER	N/A	N/A	N/A

## HAZARDOUS AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

[illegible]

## TOXIC AIR POLLUTANT EMISSIONS INFORMATION - FACILITY-WIDE

INDICATE REQUESTED ACTUAL EMISSIONS AFTER CONTROLS / LIMITATIONS. EMISSIONS ABOVE THE TOXIC PERMIT EMISSION RATE (TPER) IN 15A NCAC 2Q .0711 MAY REQUIRE AIR DISPERSION MODELING. USE NETTING FORM D2 IF NECESSARY.

[illegible]

COMMENTS:

**Attach Additional Sheets As Necessary**



## Carolinas Cement Company - Castle Hayne Terminal Emissions Calculations

Baghouse ID	Control Device ID	AP-42 PM EF	AP-42 PM10 EF	AP-42 Uncontrolled PM EF	AP-42 Uncontrolled PM10 EF	Max. Design Throughput	PM Emissions	PM10 Emissions	Uncontrolled PM	Uncontrolled PM10
		lb/ton	lb/ton	lb/ton	lb/ton	tons	TPY	TPY	TPY	TPY
ES-1 - rail/truck unloading	CD-P1	0.00099	0.00034	0.73	0.47	150000	0.07	0.03	54.75	35.25
ES-R33 Screw conveyor and truck loadout	CD-P30	0.098	0.0263	1.118	0.310	150000	7.35	1.97	83.85	23.25
ES-4 Cement Silo	CD-P43	0.00099	0.00034	0.73	0.47	150000	0.07	0.03	54.75	35.25
						Total	7.5	2.0	193.4	93.8

ES-1 and ES-4: AP-42 Table 11.12-2 for Concrete Batching

TABLE 11.12-2 (ENGLISH UNITS)  
EMISSION FACTORS FOR CONCRETE BATCHING \*

[illegible]