

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Inspection Report
Date: 05/20/2024

Fayetteville Regional Office
Fay Block Company
NC Facility ID 2600033
County/FIPS: Cumberland/051

Facility Data	Permit Data
Fay Block Company 130 Builders Blvd Fayetteville, NC 28301 Lat: 35d 04.3333m Long: 78d 52.6999m SIC: 3271 / Concrete Block And Brick NAICS: 327331 / Concrete Block and Brick Manufacturing	Permit 02357 / R18 Issued 12/19/2023 Expires 11/30/2031 Class/Status Small Permit Status Active Current Permit Application(s) None

Contact Data			Program Applicability
Facility Contact	Authorized Contact	Technical Contact	SIP
Amy Barnes EHS Director (910) 806-7158	Richard Allen, Jr. President (910) 323-9198	Amy Barnes EHS Director (910) 806-7158	

Comments:	Compliance Data
Inspector's Signature: <i>Mike Turner</i> Date of Signature: <i>5/20/2024</i>	Inspection Date 05/03/2024 Inspector's Name Mike Turner Operating Status Operating Compliance Status In Physical Compliance Action Code FCE Inspection Result Compliance

Total Actual emissions in TONS/YEAR:

	TSP	SO2	NOX	VOC	CO	PM10	* HAP
2022	19.65	---	0.5600	0.0300	0.4300	5.92	18.14
2014	14.62	---	0.6500	0.0400	0.5500	3.56	23.40

* Highest HAP Emitted (in pounds)

Five Year Violation History:

Date	Letter Type	Rule Violated	Violation Resolution Date
06/13/2023	NOV/NRE	2D .0540 Particulates from Fugitive Non-process Dust Emission Sources	06/28/2023

Performed Stack Tests since last FCE: None

Date	Test Results	Test Method(s)	Source(s) Tested

I. DIRECTIONS

From FRO, head north on Green St. toward Mason St. for 0.2 miles. Continue onto Ramsey St. for 1.0 mile, then turn right onto Builders Blvd (facility entrance is on the right at the stoplight intersection). Office building is straight ahead (gone too far if you cross over railroad tracks).

II. SAFETY

Standard FRO safety gear; be aware of the many overhead conveyors, moving trucks, forklifts, and block production equipment.

III. FACILITY/PROCESS DESCRIPTION

This facility operates two separate identical block plants. Block mix is made by combining in a central mixer sand, lightweight aggregate (bottom ash from utility boilers if available), cement, and water. The mix is poured into block molds, set for a time, mold removed, and then the formed blocks enter a steam curing kiln for 24 plus hours whose steam is created from natural gas-fired vapor generators. Once cooled, the blocks are stacked on pallets and placed outdoors for a few days until completely dried. The pallet is transported to an indoor quality test area where inadequate blocks are rejected, accumulated, crushed and recycled back into the block mix. Some are put into a 'yard sale waste bin' for anyone to buy really cheap. Quality blocks are stacked on pallets, cured further, wrapped in cellophane, and shipped to customers. The facility also operates a cement terminal operation for unloading cement from trucks and rail cars.

IV. PERMITTED EMISSION SOURCES

Emission Source ID	Emission Source Description	Control System ID	Control System Description
Sand Operation (40 ton/hr) (all sources with wet suppression noted)			
SCONV-1 SCONV-2 SCONV-3 SCONV-4 Not operating	Four (4) Sand Conveyors (all with wet suppression)	N/A	N/A
SSCRN Not operating	Sand Screening Operation (with wet suppression)		
SHOPP Not operating	Sand Hopper		
Raw Material Crusher Operation (40 ton/hr) (all sources with wet suppression noted)			
RMCONV-1 RMCONV-2 RMCONV-3 RMCONV-4 RMCONV-5 Not operating	Five (5) Raw Material Conveyors (all with wet suppression)	N/A	N/A
RMCRUSH Not operating	Raw Material Crusher		
RMSCRN Not operating	Raw Material Screen (with wet suppression)		
RMHOPP Not operating	Raw Material Hopper		
RMMAINCONV Not operating	Raw Material Main Conveyor		
Recycled Concrete Crusher Operation (50 ton/hr) (all sources with wet suppression noted)			
RCCONV-1 RCCONV-2 RCCONV-3 RCCONV-4 RCCONV-5 Not operating	Five (5) Recycled Concrete Conveyors (RCCONV-2 through 5 have wet suppression)	N/A	N/A

RCC Not operating	Recycled Concrete Impactor Crusher		
RCCSCRN 1 Not operating	Recycled Concrete Grizzly Feeder Screen 1		
RCCSCRN 2 Not operating	Recycled Concrete Screen 2 (with wet suppression)		
Mix Plant #2 Conveyor System and Silos			
MIXPL2CONV Not operating	Conveyor System for Mix Plant #2, consisting of storage bins, hoppers, and conveyors	N/A	N/A
MIXPL2S1 Not operating	Cement Storage Silo #1 for Mix Plant #2	BH-7	Fabric Filter (250 square feet of filter area)
MIXPL2S2 Not operating	Cement Storage Silo #2 for Mix Plant #2	BH-8	Fabric Filter (250 square feet of filter area)
Mix Plant #1 Conveyor System and Silos			
MIXPL1CONV Not operating	Conveyor System for Mix Plant #1, consisting of storage bins, hoppers, and conveyors	N/A	N/A
MIXPL1S1 Not operating	Cement Storage Silo #1 for Mix Plant #1	BH-1	Fabric Filter (250 square feet of filter area)
MIXPL1S2 Not operating	Cement Storage Silo #2 for Mix Plant #1	BH-2	Fabric Filter (250 square feet of filter area)
MIXPL1S3 Not operating	Cement Storage Silo #3 for Mix Plant #1	BH-3	Fabric Filter (250 square feet of filter area)
MIXPL1S4 Not operating	Slag/Flyash Storage Silo #4 for Mix Plant #1, 39 tons capacity	BH-6	Fabric Filter (264 square feet of filter area)
Cement Terminal Operation			
TTL-1 Not operating	Cement Tanker Truck Loading Operation	BH-TTL1	Fabric Filter (265 square feet of filter area)
TTL-2 Not operating	Cement Tanker Truck Loading Operation	BH-TTL2	Fabric Filter (265 square feet of filter area)

Insignificant/Exempt Activities:

Source	Exemption Regulation	Source of TAPs?	Source of Title V Pollutants?
I-BLOCKMACHINE1 Block Machine #1, venting indoors Not operating	2Q .0102 (h)(5)	Yes	Yes
I-BLOCKMACHINE2 Block Machine #2, venting indoors Not operating	2Q .0102 (h)(5)	Yes	Yes
I-KILN1 Group of 10 steam-heated kilns associated with mix plant #1, venting indoors Not operating	2Q .0102 (h)(5)	No	No
I-KILN2 Group of 10 steam-heated kilns associated with mix plant #2, venting indoors Not operating	2Q .0102 (h)(5)	No	No

I-MIXPL1 Mixer System #1, consisting of RP-1500 counter current mixer with round cement batcher and holding hopper, equipped with DFO 2-2 Filter system, exhausting indoors Not operating	2Q .0102 (h)(5)	Yes	Yes
I-MIXPL2 Mixer System #2, consisting of Columbia Model 81 ribbon mixer, exhausting indoors Not operating	2Q .0102 (h)(5)	Yes	Yes
I-GENSET Diesel-fired emergency generator, 246 HP NSPS III NESHAP ZZZZ Not operating	2Q .0102 (h)(5)	Yes	Yes
I-VAPGEN1 Kraft Systems model KE 35/2S HP Natural Gas-Fired Vapor Generator (3.5 mmBtu/hr Maximum Heat Input) Operating on Natural Gas with 0% VE	2Q .0102 (h)(1)(b)	Yes	Yes
I-VAPGEN2 Curtec model NDG 750 Natural Gas-Fired Vapor Generator (2.5 mmBtu/hr Maximum Heat Input) Operating on Natural Gas with 0% VE	2Q .0102 (h)(1)(b)	Yes	Yes
I-RCU Rail Car Unloading Operation consisting of 8 inch screw auger and pneumatic pump Not operating	2Q .0102 (h)(5)	Yes	Yes
I-TS-1 400 Ton Cement Storage Silo Not operating	2Q .0102 (h)(5)	Yes	Yes
I-TS-2 400 Ton Cement Storage Silo Not operating	2Q .0102 (h)(5)	Yes	Yes
I-TS-3 400 Ton Cement Storage Silo Not operating	2Q .0102 (h)(5)	Yes	Yes
I-TS-4 400 Ton Cement Storage Silo Not operating	2Q .0102 (h)(5)	Yes	Yes

V. INSPECTION SUMMARY

On 3 May 2024, I, Mike Turner, of the Fayetteville Regional Office of DAQ, conducted a compliance inspection at Fay Block Company. I met with Amy Barnes, EH&S Director, and Joe Imhoff, Operations Manager. We discussed the following:

1. Mr. Imhoff and Ms. Barnes reviewed the FacFinder and stated no changes were needed.
2. Mr. Imhoff stated the facility has 50 employees and operates 7am-5pm Monday through Friday. The six employees in the block plant have two shifts.
3. Mr. Imhoff stated the facility has not added any engines or boilers, and operations have not changed in any way that would increase emissions.
4. Hours on the 246 HP Diesel-fired emergency generator, I-GENSET.

Date	Hours
5/3/2024	85.5 hours
4/17/2023	72.8 hours
5/4/2022	60.4 hours
4/27/2021	42.1 hours
3/11/2020	13.8 hours

THROUGHPUTS

Year	Concrete Production, cu/yds.	NG, Million SCF
2023	72,176	N/A*
2022	66,829	N/A*
2021	52,004	N/A*
2020	50,523	N/A*
2019	45,695	16.01
2018	37,723	13.44
2017	45,912	15.22
2016	41,465	12.57
2015	38,764	11.05

VI. STIPULATION REVIEW

- 1. 02D .0202 PERMIT RENEWAL AND EMISSION INVENTORY REQUIREMENT** – At least 90 days prior to the expiration date of this permit, the Permittee shall submit a permit renewal and air pollution emission inventory report.

APPEARED IN COMPLIANCE – The facility's current permit expires 30 November 2031. The next renewal application and air pollution emission inventory report is due by 1 September 2031 for the 2030 calendar year.

- 2. 02D .0510 PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS** – The Permittee of a sand, gravel, or crushed stone operation shall not cause, allow, or permit any material to be produced, handled, transported, or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne.

APPEARED IN COMPLIANCE – I observed that all permitted sources of the Sand Operation (which they refer to as "Secondary"), Raw Material Crusher Operation (which they refer to as "Primary") and Recycled Concrete Crusher Operation have wet suppression where required by their most recent permit.

- 3. 02D .0515 PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES** – Particulate matter emissions from the emission sources shall not exceed allowable emission rate as permitted.

APPEARED IN COMPLIANCE – Compliance was determined during the most recent permit review based on operating the sources as described in the permit conditions. No changes have been made to operations since that determination.

- 4. 02D .0521 CONTROL OF VISIBLE EMISSIONS** – Visible emissions from the emission sources, manufactured after July 1, 1971, shall not be more than 20 percent opacity when averaged over a six-minute period.

APPEARED IN COMPLIANCE – The facility was not operating during my inspection. I observed no visible emissions emanating from any sources during our inspection. I observed no indications of past visible emissions issues.

- 5. 02D .0535 NOTIFICATION REQUIREMENT** – Facility is required to notify the DAQ of excess emissions that last for more than four hours resulting from malfunction, breakdown, or abnormal conditions.

APPEARED IN COMPLIANCE – Mr. Imhoff stated there have been no occurrences of excess emissions since the last inspection, so no reporting has been required.

6. **02D .0540 PARTICULATES FROM FUGITIVE DUST EMISSION SOURCES** – The Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary by implementing: 1) establishing and following a method and record the parameters that will be used to judge the moisture content of each storage pile and therefore, the propensity for the non-process fugitive dust to become air borne during this monitoring period. Appropriate weather conditions will also be recorded at each of these times. These log entries should include the date and time and a relative measure of moisture content of each pile, ambient temperature, wind speed and direction and the name of the evaluator.; 2) train personnel and other sub-contractors of dust plan and air permit, and maintain record of attendees; 3) maintain posted speed limit on haul roads of 10 to 15 mph and apply twice each day wet suppression; 4) investigate, apply corrective actions, and maintain records of complaints to include date/time/location/type complaint/actions; 5) maintain logs of all training, inspections, evaluations, and actions to prevent/correct emissions; 6) reopen stipulation to amend if permittee or division finds control levels are not sufficient; 7) maintain appropriate records of each of these minimum requirements.

APPEARED IN COMPLIANCE – Mr. Imhoff stated no dust complaints have been received by the facility since the last inspection. FRO received a dust complaint on 19 January 2024. FRO investigators responded to the complaint within 10 minutes of receiving the complaint and reported no dust was seen. I observed no fugitive dust during the inspection. During the inspection I observed a water truck watering down access and haul roads and the sprinklers activated on top of the aggregate piles.

The facility maintains a log that records twice-daily weather conditions for all seven aggregate and recycling piles. These logs show that each pile is wet twice a day, usually for 20 minutes each time. The facility maintains a log that records the dates and times the roads are watered. Roads are watered two times each day when the facility is operating.

The facility maintains electronic logbooks recording each employee's training activities on the facility's operations and dust plan. Employees are shown a PowerPoint presentation, available in both English or Spanish, called "Air Quality Training". This presentation covers visible emissions, point source controls (fabric filters), opacity readings, operations and maintenance manuals and schedules, recordkeeping requirements, fugitive dust controls, and fugitive dust recordkeeping. New employees are given this training during their onboarding/orientation. All employees are assigned this training every year through the facility's LMS system. The facility has an electronic tracking sheet to record each employee's training. I observed posted speed limit signs of 10 mph but also observed a 5 mph sign posted near the backside of the property closest to the railroad tracks and apartment complex.

The facility maintains a fugitive dust complaint log that records the date, time, complainant, location, nature of the complaint, corrective actions, and the name of the employee who confirmed that corrective actions had been taken. This log shows that the last complaint was 25 April 2022, and the facility dispatched a water truck to wet the haul roads.

7. **02D .0611 FABRIC FILTER REQUIREMENTS** – The Permittee shall maintain and inspect the bag filter system as recommended by the manufacturer. The facility must perform an annual internal inspection of the bag filter systems and maintain a logbook with all maintenance and inspection activities performed of these control devices.

APPEARED IN COMPLIANCE – Mr. Imhoff showed me the I&M logbooks for the plant's fabric filters. The logbook was well-organized and easy to follow. All fabric filters are visually inspected each day. Internal inspections on each fabric filter are conducted monthly and meet the requirements for annual internal inspections. At Mix Plants #1 and #2, the facility designated 15 February 2024 as the date of their permit-required annual internal inspections. At the Cement Terminal Operation, the facility designated 21 February 2024 as the date of their permit-required annual internal inspections.

- 8. 02D .1806 CONTROL AND PROHIBITION OF ODOROUS EMISSIONS** – The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundaries.

APPEARED IN COMPLIANCE – I detected no odor beyond the facility boundaries. Mr. Imhoff stated that no odor complaints have been received by the facility, and there have been no odor complaints received by DAQ.

VII. 112r APPLICABILITY

The facility does not store any of the listed chemicals above the threshold quantities and is not required to maintain a written Risk Management Plan (RMP).

VIII. NON-COMPLIANCE HISTORY SINCE 2010

On 13 June 2023, the facility was issued an NOV/NRE for failure to follow their dust control plan.

IX. CONCLUSIONS AND RECOMMENDATIONS

The Fay Block Company appeared to be operating *IN COMPLIANCE* with their current air permit at the time of inspection on 3 May 2024.

PINK SHEET NOTE

None.

/wmt