

AIR COMPLIANCE ANALYSIS SUMMARY SHEET

COMPANY/FACILITY: Vulcan Construction Materials, LLC-Orangeburg Quarry
LOCATION (COUNTY): Eutawville (Orangeburg) **DATE:** 11/14/23
PERMIT NUMBER: 1860-0165 **REVIEWED BY:** VMG

REQUEST: **CONSTRUCTION PERMIT** **STATE PERMIT**
 OPERATING PERMIT - NEW **CONDITIONAL MAJOR**
 OPERATING PERMIT - RENEWAL **GENERAL CM**
 PERMIT - MODIFICATION **TITLE V PERMIT**
 AIR COMPLIANCE DEMO **PSD MAJOR**

ANALYSIS: **AMBIENT AIR QUALITY STANDARDS** **PSD INCREMENT**
 TOXIC AIR POLLUTANTS **DE MINIMIS**
 EXEMPTION **DEFERRAL**

OTHER: **EXPEDITED** **N COLLOCATED (Y or N)**

PROJECT DESCRIPTION: The facility has submitted a construction permit application to install a new portable crushed and broken granite mining and quarrying operation. The portable plant will include one (1) grizzly feeder/truck unloading operation, three (3) crushers, two (2) screens and four (4) conveyors. The control device for each emission point ID is wet suppression (WS).

SUMMARY OF ANALYSIS & RESULTS: synTerra Science and Engineering Consultants submitted the application on behalf of the facility.

Standard 2: All of the equipment is exempt because the controlled PM₁₀/PM_{2.5} emission rate for each emission point is less than 1.14 lb/hr.

Standard 7: Since this is not a PSD project, no Standard 7 analysis is required.

Standard 8: No toxic air pollutants were reported in the construction permit application.

| STANDARD NO. 2 AND 7- EXEMPTED AMBIENT AIR QUALITY STANDARDS EMISSION RATES (LB/HR) | | | | | | |
|---|------------------|-------------------|-----------------|-----------------|----|------|
| Emission Point ID | PM ₁₀ | PM _{2.5} | SO ₂ | NO _x | CO | Lead |
| C1-P | 0.0103 | 0.0029 | -- | -- | -- | -- |
| C2-P | 0.0081 | 0.0023 | -- | -- | -- | -- |
| C3-P | 0.0161 | 0.0045 | -- | -- | -- | -- |
| C4-P | 0.0046 | 0.0013 | -- | -- | -- | -- |
| PC1-P | 0.3240 | 0.0600 | -- | -- | -- | -- |
| PC2-P | 0.1890 | 0.0350 | -- | -- | -- | -- |
| PC3-P | 0.0675 | 0.0125 | -- | -- | -- | -- |
| S1-P | 0.4440 | 0.0300 | -- | -- | -- | -- |
| S2-P | 0.2590 | 0.0175 | -- | -- | -- | -- |
| TU-1 | 0.0008 | 0.0001 | -- | -- | -- | -- |
| FACILITY TOTAL | 1.3234 | 0.1660 | -- | -- | -- | -- |

| EMISSION POINT DESCRIPTIVE INFORMATION | | | | |
|--|--|---------------------------|--|-------|
| Emission Point ID | Source Identification & Description | Date Installed (Modified) | Status | Other |
| C1-P | 225 TPH Conveyor Stacker #1 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| C2-P | 175 TPH Conveyor Stacker #2 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| C3-P | 350 TPH Conveyor Stacker #3 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| C4-P | 100 TPH Conveyor Stacker #4 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| E-1 | 300hp (223.71 kW) Tier 3/Stage IIIA Engine | 2023 | Exempt Std 2,7,8:Internal Combustion Engine considered portable, "non-road" engine | |
| PC1-P | Portable 600 TPH Crusher #1 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| PC2-P | Portable 350 TPH Crusher #2 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| PC3-P | Portable 125 TPH Crusher #3 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| S1-P | Portable 600 TPH Screen #1 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| S2-P | Portable 350 TPH Screen #2 w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |
| TU-1 | 600 TPH Grizzly/Truck Unloading w/ Wet Suppression | 2023 | Exempt Std 2: PM ₁₀ , PM _{2.5} < 1.14 lb/hr | |

| HISTORY | | | |
|----------|-----|--------|---|
| Date | By | Reason | Description |
| 11/14/23 | VMG | C/P | <p><u>Standard 2</u>: All of the equipment is exempt because the controlled PM₁₀/PM_{2.5} emission rate for each emission point is less than 1.14 lb/hr.</p> <p><u>Standard 7</u>: Since this is not a PSD project, no Standard 7 analysis is required.</p> <p><u>Standard 8</u>: toxic air pollutants were reported in the construction permit application.</p> |