

ROY COOPER
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MICHAEL A. ABRACZINSKAS
Director



NORTH CAROLINA
Environmental Quality

XXXX XX, 2021

Mr. Gregg Bowler
President
Carolina Sunrock LLC - Prospect Hill Quarry and Dist. Center
200 Horizon Drive, Suite 100
Raleigh, NC 27615

Subject: Air Permit No. 10694R00
Carolina Sunrock LLC - Prospect Hill Quarry and Dist. Center
Prospect Hill, Caswell County, North Carolina
Permit Class: Synthetic Minor
Facility ID# 1700017

Dear Mr. Bowler:

In accordance with your completed application received July 8, 2021, we are forwarding herewith Permit No. 10694R00 to Carolina Sunrock LLC - Prospect Hill Quarry and Dist. Center, Prospect Hill, Caswell County, North Carolina for the construction and operation of air emissions sources or air cleaning devices and appurtenances. Additionally, any emissions activities determined from your air permit application as meeting the exemption requirements contained in 15A NCAC 2Q .0102 have been listed for information purposes as an "ATTACHMENT" to the enclosed air permit. Please note the records retention requirements are contained in General Condition 2 of the General Conditions and Limitations.

If any parts, requirements, or limitations contained in this permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. Such a request will stay the effectiveness of the entire permit. This hearing request must be in the form of a written petition, conforming to G.S. 150B-23 of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to G.S. 150B-23, this air permit shall be final and binding.

You may request modification of your air permit through informal means pursuant to G.S. 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that the permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under G.S. 150B-23.



North Carolina Department of Environmental Quality | Division of Air Quality

Winston-Salem Regional Office | 450 West Hanes Mill Road, Suite 300 | Winston-Salem, NC 27105

336.776.9800 T | 336.776.9797 F

Unless exempted by a condition of this permit or the regulations, construction of new air pollution sources or air cleaning devices, or modifications to the sources or air cleaning devices described in this permit must be covered under a permit issued by the Division of Air Quality prior to construction. Failure to do so is a violation of G.S. 143-215.108 and may subject the Permittee to civil or criminal penalties as described in G.S. 143-215.114A and 143-215.114B.

This permit shall be effective from XXXX XX, 20XX until XXXX XX, 20XX, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Changes have been made to the permit stipulations. The Permittee is responsible for carefully reading the entire permit and evaluating the requirements of each permit stipulation. The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

Should you have any questions concerning this matter, please contact Dylan Wright at 336-776-9646 or dylan.wright@ncdenr.gov.

Sincerely,

T. Ray Stewart, Jr., P.E., CPM, Regional Supervisor
Division of Air Quality, NC DEQ

DAW
Enclosures

c: Winston-Salem Regional Office
Connie Horne, Cover letter only

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

AIR PERMIT NO. 10694R00

Issue Date: **XXXX XX, 2021**

Effective Date: **XXXX XX, 2021**

Expiration Date: **XXXX XX, 2029**

Replaces Permit: (new)

To construct and operate air emission source(s) and/or air cleaning device(s), and for the discharge of the associated air contaminants into the atmosphere in accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina (NCGS) as amended, and other applicable Laws, Rules and Regulations,

Carolina Sunrock LLC - Prospect Hill Quarry and Dist. Center
 1238 Wrenn Road
 Prospect Hill, Caswell County, North Carolina
 Permit Class: Synthetic Minor
 Facility ID# 1700017

(The Permittee) is hereby authorized to construct and operate the air emissions sources and/or air cleaning devices and appurtenances described below:

Emission Source ID	Emission Source Description	Control System ID	Control System Description
Drum Mix Asphalt Plant (250 tons per hour capacity) consisting of the following:			
HMA-1 (NSPS)	Propane/Natural Gas/No. 2 Fuel Oil/Recycled No. 2 Fuel Oil/Recycled No. 4 Fuel Oil-fired drum type hot mix asphalt plant (80 MMBtu/hr. maximum heat input capacity)	HMA-CD1	Cyclone in series with a Bagfilter (8,968 square feet of filter area)
ES-ACH1	Natural Gas/ULSD-fired Asphalt Cement Heater (1.2 MMBtu/hr. maximum heat input capacity)	N/A	N/A
ES-ACH2	Natural Gas/ULSD-fired Asphalt Cement Heater (1.1 MMBtu/hr. maximum heat input capacity)		
HMA-LO1	Asphalt Loadout Operation Silo 1		
HMA-LO2	Asphalt Loadout Operation Silo 2		
HMA-LO3	Asphalt Loadout Operation Silo 3		
HMA-LO4	Asphalt Loadout Operation Silo 4		
HMA-LO5	Asphalt Loadout Operation Silo 5		
HMA-Silo1	Hot Mix Asphalt Storage Silo (150 tons Maximum Capacity)		
HMA-Silo2	Hot Mix Asphalt Storage Silo (150 tons Maximum Capacity)		
HMA-Silo3	Hot Mix Asphalt Storage Silo (200 tons Maximum Capacity)		
HMA-Silo4	Hot Mix Asphalt Storage Silo (200 tons Maximum Capacity)		
HMA-Silo5	Hot Mix Asphalt Storage Silo (200 tons Maximum Capacity)		

Emission Source ID	Emission Source Description	Control System ID	Control System Description
RAP Crushing System Consisting of the Following:			
RAP-CR1 (NSPS)	RAP Crusher (65 tons/hr. Maximum Capacity)	N/A	N/A
RAP-BF1 (NSPS)	RAP Bin and Feeder		
RAP-C1 (NSPS)	RAP 36" Conveyor, Feeder to Crusher		
RAP-C2 (NSPS)	RAP 36" Conveyor, Crusher to Screen		
RAP-C3 (NSPS)	RAP 36" Conveyor, Screen to Plant		
RAP-C4 (NSPS)	RAP 36" Conveyor, Screen to Conveyor (C-5)		
RAP-C5 (NSPS)	RAP 36" Conveyor, Conveyor (C-5) to Conveyor (C-6)		
RAP-C6 (NSPS)	RAP 36" Conveyor, Conveyor (C-6) to Crusher		
RAP-SC1 (NSPS)	8' X 20' Double Deck Screen		
Truck Mix Concrete Batch Plant (120 cubic yards per hour capacity) consisting of the following:			
RMC-LO1	Truck Loadout Point	RMC-CD2	Bagfilter (1,433 square feet of filter area)
RMC-Silo1	Cement Storage Silo (200-ton capacity)		
RMC-Silo2	Flyash Storage Silo (150-ton capacity)		
RMC-WB1	Cement/Flyash Weigh Batcher (5-ton max capacity)		
RMC-WB2	Aggregate Weigh Batcher (20-ton max capacity)	N/A	N/A
Non-Metallic Mineral Processing Plant utilizing water suppression with no other control device, including:			
ES-Conveying (NSPS)	Conveying Operations	N/A	N/A
ES-Crusher (NSPS)	Crushing Operations		
ES-Screening (NSPS)	Screening Operations		
Power Generators:			
ES-PGEN1 (NSPS, NESHAP)	2065 hp Natural Gas/Propane Fired Generator #1	CD-PGEN1	Catalytic Oxidizer
ES-PGEN2 (NSPS, NESHAP)	2065 hp Natural Gas/Propane Fired Generator #2	CD-PGEN2	Catalytic Oxidizer
ES-PGEN3 (NSPS, NESHAP)	1721 hp Natural Gas/Propane Fired Generator #3	CD-PGEN3	Catalytic Oxidizer
Support Equipment:			
GEN-1 (NSPS-III, NESHAP-ZZZZ)	(J50V2) 350 hp Diesel Engine Powering Primary Crusher	N/A	N/A
GEN-1a (NSPS-III, NESHAP-ZZZZ)	(J45) 350 hp Diesel Engine Powering Primary Crusher		
GEN-2 (NSPS-III, NESHAP-ZZZZ)	(s190dt) 125 hp Diesel Engine Powering Screen		
GEN-3 (NSPS-III, NESHAP-ZZZZ)	(PS1300 Maxtrack) 440 hp Diesel Engine Powering Cone Crusher		
GEN-4 (NSPS-III, NESHAP-ZZZZ)	(TF80) 125 hp Diesel Engine Powering Tracked Feeder		
GEN-5 (NSPS-III, NESHAP-ZZZZ)	(PS1300 Maxtrack) 450 hp Diesel Engine Powering Cone Crusher		
GEN-7 (NSPS-III, NESHAP-ZZZZ)	(PS100 Maxtrack) 350 hp Diesel Engine Powering Cone Crusher		

in accordance with the completed application 1700017.21A received July 8, 2021, including any plans, specifications, previous applications, and other supporting data, all of which are filed with the Department of Environmental Quality, Division of Air Quality (DAQ) and are incorporated as part of this permit.

This permit is subject to the following specified conditions and limitations including any TESTING, REPORTING, OR MONITORING REQUIREMENTS:

A. SPECIFIC CONDITIONS AND LIMITATIONS

1. Any air emission sources, or control devices authorized to construct and operate above must be operated and maintained in accordance with the provisions contained herein. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A North Carolina Administrative Code (NCAC), Subchapter 2D .0202, 2D .0501, 2D .0503, 2D .0506, 2D .0510, 2D .0515, 2D .0516, 2D .0521, 2D .0524 (40 CFR 60, Subpart I, Subpart III, Subpart JJJ, Subpart OOO), 2D .0535, 2D .0540, 2D .0605, 2D .0611, 2D .1100, 2D .1111 (40 CFR 63, Subpart ZZZZ), 2D .1806, 2Q .0304, 2Q .0315, 2Q .0317 (Avoidance) and 2Q .0711.
2. PERMIT RENEWAL AND EMISSION INVENTORY REQUIREMENT - The Permittee, at least 90 days prior to the expiration date of this permit, shall request permit renewal by letter in accordance with 15A NCAC 2Q .0304(d) and (f). Pursuant to 15A NCAC 2Q .0203(i), no permit application fee is required for renewal of an existing air permit (without a modification request). The renewal request (with application Form A) should be submitted to the Regional Supervisor, DAQ. Also, at least 90 days prior to the expiration date of this permit, the Permittee shall submit the air pollution emission inventory report (with Certification Sheet) in accordance with 15A NCAC 2D .0202, pursuant to N.C. General Statute 143 215.65. The report shall be submitted to the Regional Supervisor, DAQ and shall document air pollutants emitted for the 2028 calendar year.
3. COMPLIANCE WITH EMISSION CONTROL STANDARDS - As required by 15A NCAC 2D .0501 (c) any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards pursuant to 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than those named in the applicable emission standards in this Section are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

The Permittee submitted a sitewide NAAQS dispersion modeling analysis that was received March 2, 2021, and revised March 10 and 17, 2021. The modeling analysis was reviewed and approved by the DAQ Air Quality Analysis Branch (AQAB) on March 23, 2021. Placement of the emission sources, configuration of the emission points, and operation of the sources shall be in accordance with the submitted sitewide NAAQS dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memo.

- a. Production Limitations - To ensure compliance with 2D.0501(c), the Permittee shall operate the modeled sources in accordance with the operating restrictions presented in Condition A.22, below.
- b. Water Truck – An operable water truck shall be available on site (can be on the quarry property) at all times while the plant is operating. The haul roads and front-end loader work area shall be adequately maintained by wet suppression to minimize fugitive emissions.
- c. The Permittee shall maintain on-site an equipment list and a plant (or flow) diagram of all equipment covered under this permit.
 - i. The equipment list shall include the following information for each piece of equipment:
 - A. A description of equipment including applicability of New Source Performance Standards, and:
 - I. Width of belt conveyors,
 - II. Dimensions and configuration (e.g., triple deck) of screens, and
 - III. Rated capacity (tons or tons/hr.) of all nonmetallic mineral processing equipment.
 - B. A unique ID number.
 - C. The date the equipment was manufactured.
 - D. The dates any required performance testing was conducted and submitted to the Regional Supervisor, DAQ.
 - ii. The equipment list and plant (or flow) diagram shall bear the date when the current list and diagrams were revised.
 - iii. The Permittee shall provide documentation to the Regional Supervisor, DAQ, for any required performance testing within seven days of a written request.
 - iv. Notwithstanding General Conditions and Limitations titled "Equipment Relocation" and "Reporting Requirement," the Permittee may install new and relocate existing nonmetallic mineral processing equipment after obtaining prior approval from the Director. The Permittee shall provide written notification to the Regional Supervisor, DAQ, including a revised equipment list and plant (or flow) diagram, each time nonmetallic mineral processing equipment is installed or relocated at a facility. Nonmetallic mineral processing equipment includes all crushers, screens, conveyors and loadout bins.

4. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0503 "Particulates from Fuel Burning Indirect Heat Exchangers," particulate matter emissions from the fuel burning indirect heat exchangers shall not exceed the allowable emission rates listed below:

Source	Emission Limit (lbs./million Btu)
Natural Gas/No.2 fuel oil-fired Asphalt Cement Heater	0.6, each

(1.2 MMBtu/hr. maximum heat input capacity) (ES-ACH1)	
Natural Gas/No.2 fuel oil-fired Asphalt Cement Heater	
(1.1 MMBtu/hr. maximum heat input capacity) (ES-ACH2)	

5. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0506 "Particulates from Hot Mix Asphalt Plants,"

- a. Particulate matter emissions resulting from the operation of a hot mix asphalt plant shall not exceed allowable emission rates. The allowable emission rates are, as defined in 15A NCAC 2D .0506, a function of the process weight rate and shall be determined by the following equation (calculated to three significant figures), where P is the process throughput rate in tons per hour (tons/hr.) and E is the allowable emission rate in pounds per hour (lbs./hr.).

$$E = 4.9445 * (P)^{0.4376} \quad \text{for } P < 300 \text{ tons/hr.}, \text{ or}$$

$$E = 60 \text{ lbs./hr.} \quad \text{for } P \geq 300 \text{ tons/hr.}$$

- b. Visible emissions from stacks or vents at a hot mix asphalt plant shall be less than 20 percent opacity when averaged over a six-minute period.
- c. Fugitive dust emissions shall be controlled as required by 15A NCAC 2D .0540 "Particulates From Fugitive Dust Emission Sources."
- d. Fugitive emissions for sources at a hot mix asphalt plant not covered elsewhere under this Rule shall not exceed 20 percent opacity averaged over six minutes.

6. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0510 "Particulates from Sand, Gravel, or Crushed Stone Operations," the following requirements apply:

- a. The Permittee of a sand, gravel, recycled asphalt pavement (RAP), 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 to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM₁₀ and total suspended particulates.
- b. Fugitive dust emissions from sand, gravel, RAP, or crushed stone operations shall be controlled by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources."
- c. The Permittee of any sand, gravel, RAP, or crushed stone operation shall control process-generated emissions:
 - i. From crushers with wet suppression (excluding RAP crushers); and
 - ii. From conveyors, screens, and transfer points

such that the applicable opacity standards in 15A NCAC 2D .0521 "Control of Visible Emissions," or 15A NCAC 2D .0524 "New Source Performance standards" are not exceeded.

7. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0515 "Particulates from Miscellaneous Industrial Processes," particulate matter emissions from Truck Loadout Point (ID No. RMC-LO1), Cement Storage Silo (200-ton capacity) (ID No. RMC-Silo1), Flyash Storage Silo (150-ton capacity) (ID No. RMC-Silo2), Cement/Flyash Weigh Batcher (25-ton max capacity) (ID No. RMC-WB1) and Aggregate Weigh Batcher (50-ton max capacity) (ID No. RMC-WB2) shall not exceed allowable emission rates. The allowable emission rates are, as defined in 15A NCAC 2D .0515, a function of the process weight rate and shall be determined by the following equation(s), where P is the process throughput rate in tons per hour (tons/hr.) and E is the allowable emission rate in pounds per hour (lbs./hr.).

$$E = 4.10 * (P)^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr., or}$$

$$E = 55 * (P)^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr.}$$

8. SULFUR DIOXIDE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0516 "Sulfur Dioxide Emissions from Combustion Sources," sulfur dioxide emissions from the combustion sources shall not exceed 2.3 pounds per million Btu heat input.
9. VISIBLE EMISSIONS CONTROL REQUIREMENT - As required by 15A NCAC 2D .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, except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. However, sources which must comply with a visible emissions standard in 15A NCAC 2D .0524 "New Source Performance Standards" or .1110 "National Emission Standards for Hazardous Air Pollutants" shall meet that standard instead of the 2D .0521 visible emissions standard.
10. 15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the following equipment, The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart indicated below, and including Subpart A "General Provisions."

Emission Source(s)	Regulation
(J50V2) 350 hp Diesel Engine Powering Primary Crusher (ID No. GEN-1) (J45) 350 hp Diesel Engine Powering Primary Crusher (ID No. GEN-1a) (s190dt) 125 hp Diesel Engine Powering Screen (ID No. GEN-2) (PS1300 Maxtrack) 440 hp Diesel Engine Powering Cone Crusher (ID No. GEN-3) (TF80) 125 hp Diesel Engine Powering Tracked Feeder (ID No. GEN-4) (PS1300 Maxtrack) 450 hp Diesel Engine Powering Cone Crusher (ID No. GEN-5) (PS100 Maxtrack) 350 hp Diesel Engine Powering Cone Crusher (ID No. GEN-7)	40 CFR 60, Subpart III "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)"

a. Emission Standards:

- i. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4204 over the entire life of the engine.
- ii. For the 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder, the Permittee shall comply with the emission standards for new CI engines in 40 CFR 60.4201, as applicable. [60.4204(b)]

b. Fuel Requirements:

- i. Engines subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, as listed below, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [60.4207(b)]
 - A. Has a maximum sulfur content of 15 ppm [40 CFR 80.510(b)]; and
 - B. Has a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 80.510(b)]

c. Compliance Requirements:

- i. The Permittee shall do all the following, except as permitted under 40 CFR 60.4211(g): [60.4211(a)]
 - A. Operate and maintain the stationary CI ICE and control device according to the manufacturer's written emission-related instructions or procedures developed by the Permittee that are approved by the engine manufacturer; [60.4211(a)(1)]
 - B. Change only those emission-related settings that are permitted by the manufacturer [60.4211(a)(2)]; and
 - C. Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable. [60.4211(a)(3)]
- ii. For the 2007 model year and later stationary CI ICE that must comply with the emission standards specified in 40 CFR 60.4204(b) or 4205(b), the Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), or 4205(b) or (c), as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [60.4211(c)]
- iii. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or if the Permittee changes emission-related settings in a way

that is not permitted by the manufacturer, the Permittee shall demonstrate compliance per the requirements of 40 CFR 60.4211(g). [60.4211(g)]

11. 15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the Hot Mix Asphalt Plant (ID No. HMA-1), the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart I, including Subpart A "General Provisions."

- a. NSPS Reporting Requirements - In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:
 - i. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected source is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced sources which are purchased in completed form;
 - ii. The actual date of initial start-up of an affected source, postmarked within 15 days after such date.
- b. NSPS Emissions Limitations - As required by 15A NCAC 2D .0524, the Permittee shall not discharge or cause the discharge into the atmosphere from any affected source any gases which:
 - i. Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf); or
 - ii. Exhibit 20 percent opacity, or greater.
- c. NSPS Performance Testing - As required by 15A NCAC 2D .0524, the following performance tests shall be conducted:
 - i. The Permittee shall conduct the testing required in Permit Condition A.16.

12. 15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the following equipment, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60, Subpart indicated below, and including Subpart A "General Provisions."

Emission Source(s)	Regulation
Generator #1 (ID No. ES-PGEN1) Generator #2 (ID No. ES-PGEN2) Generator #3 (ID No. ES-PGEN3)	40 CFR Part 60, Subpart JJJJ Standards of Performance for Stationary Spark Ignition Combustion Engines (SI ICE)

- a. Compliance Requirements - As required by 15A NCAC 2D .0524, the following compliance requirements shall apply:
- i. The Permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in 40 CFR 60.4233 over the entire life of the engine. [60.4234]
 - ii. Owners and operators of stationary SI ICE who conduct performance tests shall follow the procedures in 40 CFR 60.4244. [60.4244]
 - iii. For SI ICE is manufactured after July 1, 2008, that must comply with the emission standards specified in 40 CFR 60.4233(a) through (c), the Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the Permittee shall meet one of the requirements specified in (A) and (B) of this section. [60.4243(a)]
 - A. For the certified stationary SI ICE and control device that are operated and maintained according to the manufacturer's emission-related written instructions, the Permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The Permittee shall also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to you. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI ICE will not be considered out of compliance [60.4243(a)(1)]; or
 - B. If the certified stationary SI ICE and control device are not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the Permittee shall demonstrate compliance according to the following, as appropriate. [60.4243(a)(2)]
 - I. For the stationary SI ICE that is greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [60.4243(a)(2)(iii)]
 - iv. For the stationary SI ICE that must comply with the emission standards specified in 40 CFR 60.4233(d) or (e), the Permittee shall demonstrate compliance according to one of the methods specified in paragraphs A and B of this section. [60.4243(b)]

- A. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a) [60.4243(b)(1)]; or
- B. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to the following: [60.4243(b)(2)]
 - I. For a stationary SI ICE that is greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [60.4243(b)(2)(ii)]
- v. It is expected that air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [60.4243(g)]
- b. Recordkeeping Requirements - As required by 15A NCAC 2D .0524, the following recordkeeping requirements shall apply:
 - i. The Permittee shall keep records as follows: [60.4245]
 - A. All notifications submitted to comply with this subpart and all documentation supporting any notification; [60.4245(a)(1)]
 - B. Maintenance conducted on the engine; [60.4245(a)(2)]
 - C. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable [60.4245(a)(3)]; and
 - D. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards. [60.4245(a)(4)]
 - ii. A copy of the maintenance plan, if required, and records of conducted maintenance. [60.4243(a)(1)]
 - iii. Copies of any performance testing required under this Subpart. [60.4245(d)]

- iv. All records required under this section shall be maintained for a period of two years following the date of such record. All records shall be kept on-site and made available to DAQ personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if recordkeeping requirements are not maintained. [40 CFR 60.7(f)]
- c. Reporting Requirements - As required by 15A NCAC 2D .0524, the following reporting requirements shall apply:
- i. For SI ICE subject to performance testing as required, and conducted according to the requirements of 40 CFR 60.4244, the Permittee shall submit a copy of each performance test within 60 days after the test has been completed. [60.4243(a)(2), (b)(2), (e), and (f)]
 - ii. For stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the Permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification shall include the information in paragraphs (A) through (E) of this section. [60.4245(c)]
 - A. Name and address of the owner or operator; [60.4245(c)(1)]
 - B. The address of the affected source; [60.4245(c)(2)]
 - C. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; [60.4245(c)(3)]
 - D. Emission control equipment; [60.4245(c)(4)] and
 - E. Fuel used. [60.4245(c)(5)]
13. 15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the nonmetallic mineral processing equipment (wet material processing operations, as defined in 60.671, are not subject to this Subpart) including Conveying Operations (ID No. ES-Conveying), Crushing Operations (ID No. ES-Crusher), Screening Operations (ID No. ES-Screening), RAP Bin and Feeder (ID No. RAP-BF1), RAP 36" Conveyor (C-1) Feeder to Crusher (RAP-CR1) (ID No. RAP-C1), RAP 36" Conveyor (C-2) Crusher to Screen (RAP-CR1) (ID No. RAP-C2), RAP 36" Conveyor (C-3) Screen to Plant (ID No. RAP-C3), RAP 36" Conveyor (C-4) Screen to Conveyor (C-5) (ID No. RAP-C4), RAP 36" Conveyor (C-5) Conveyor (C-5) to Conveyor (C-6) (ID No. RAP-C5) and RAP 36" Conveyor (C-6) Conveyor (C-6) to Crusher (RAP-CR1) (ID No. RAP-C6), the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart OOO, including Subpart A "General Provisions."
- a. NSPS Reporting Requirements - In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:

- i. The actual date of initial start-up of an affected facility, postmarked within 15 days after such date;
- b. NSPS Emissions Limitations - As required by 15A NCAC 2D .0524 [40 CFR 60.672], the following permit limits shall not be exceeded:

- i. For affected facilities that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008 (wet material processing operations, as defined in 60.671, and Like-For-Like-Replacement, as allowed in 60.670(d), are not subject to this Subpart):

Affected Facility	Pollutant	Emission Limit
Crushers	Visible Emissions	15% opacity
Fugitive emissions from conveyor belts, screening operations, and other affected facilities	Visible Emissions	10% opacity

- ii. For affected facilities that commenced construction, modification, or reconstruction on or after April 22, 2008 (wet material processing operations, as defined in 60.671, and Like-For-Like-Replacement, as allowed in 60.670(d), are not subject to this Subpart):

Affected Facility	Pollutant	Emission Limit
Crushers	Visible Emissions	12% opacity
Fugitive emissions from conveyor belts, screening operations, and other affected facilities	Visible Emissions	7% opacity

- c. NSPS Monitoring Requirements - As required by 15A NCAC 2D .0524 [40 CFR 60.674], the following monitoring shall be conducted:
 - i. For any affected facility that commenced construction, modification, or reconstruction on or after April 22, 2008 that uses wet suppression to control emissions (Like-For-Like-Replacement, as allowed in 60.670(d), is not subject to this Subpart), the Permittee shall:
 - A. Perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression systems.
 - B. Initiate corrective action within 24 hours and complete corrective action as expediently as practical if the Permittee finds that water is not flowing properly during an inspection of the water spray nozzles.
- d. NSPS Recordkeeping Requirements - As required by 15A NCAC 2D .0524 [40 CFR 60.676], the following recordkeeping requirements shall be conducted:

- i. Each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, shall be recorded in a logbook (in written or electronic form).
 - ii. The logbooks (in written or electronic form) shall be maintained on-site and made available to DAQ personnel upon request.
- e. NSPS Performance Testing - As required by 15A NCAC 2D .0524, the following performance tests shall be conducted:

Affected Facility	Pollutant	Test Method
Crushers	Visible Emissions	Method 9
Fugitive emissions from conveyor belts, screening operations, and other affected facilities	Visible Emissions	Method 9

- i. All performance tests shall be conducted in accordance with EPA Reference Methods, contained in 40 CFR 60, Appendix A;
- ii. The EPA Administrator retains the exclusive right to approve equivalent and alternative test methods, continuous monitoring procedures, and reporting requirements;
- iii. Within 60 days after achieving the maximum production rate at which the affected facility(s) will be operated, but not later than 180 days after the initial start-up of the affected facility(s), the Permittee shall conduct the required performance test(s) and submit two copies of a written report of the test(s) to the Regional Supervisor, DAQ;
- iv. The Permittee shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate or at a lesser rate if specified by the Director or his delegate;
- v. All associated testing costs are the responsibility of the Permittee;
- vi. The Permittee shall arrange for air emission testing protocols to be provided to the DAQ prior to testing. Testing protocols are not required to be pre-approved by the DAQ prior to testing. The DAQ shall review testing protocols for pre-approval prior to testing if requested by the Permittee at least 45 days before conducting the test; and
- vii. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least 7 days notice of any required performance test(s) that involve only Method 9. All other tests require a 30-day notice.
- viii. When determining compliance with the visible emissions limit from fugitive emissions from crushers, conveyor belts, screening operations, and other

affected facilities (as described in 60.672(b) or 60.672(e)(1)), the duration of the Method 9 test must be 30 minutes (five 6-minute averages). Compliance with the fugitive visible emissions limits must be based on the average of the five 6-minute averages.

- ix. For any affected facility that commenced construction, modification, or reconstruction on or after April 22, 2008 that does not use wet suppression to control emissions, the Permittee shall repeat the performance tests within five (5) years of the previous test.

- A. If an affected facility relies on water carryover from upstream wet suppression to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement provided that the Permittee conducts periodic inspections of the upstream wet suppression that is responsible for controlling fugitive emissions from the affected facility and designates which upstream wet suppression systems will be periodically inspected at the time of the initial performance test.

- f. Like-For-Like-Replacement - As provided in 40 CFR 60.670(d), when an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in 40 CFR 60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of 40 CFR 60.672, 60.674, and 60.675 except as provided for in 60.670(d)(3). The Permittee shall comply with the reporting requirements of 40 CFR 60.676(a). Equipment covered under 40 CFR 60.670 shall comply the requirements of 15A NCAC 2D .0521.

- 14. NOTIFICATION REQUIREMENT - As required by 15A NCAC 2D .0535, the Permittee of a source of excess emissions that last for more than four hours and that results from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall:

- a. Notify the Director or his designee of any such occurrence by 9:00 a.m. Eastern time of the Division's next business day of becoming aware of the occurrence and describe:
 - i. the name and location of the facility,
 - ii. the nature and cause of the malfunction or breakdown,
 - iii. the time when the malfunction or breakdown is first observed,
 - iv. the expected duration, and
 - v. an estimated rate of emissions.
 - b. Notify the Director or his designee immediately when the corrective measures have been accomplished.

This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

15. **FUGITIVE DUST CONTROL REQUIREMENT** - As required by 15A NCAC 2D .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. If substantive complaints are received or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

16. **TESTING REQUIREMENT** - Under the provisions of North Carolina General Statute 143-215.108 and in accordance with 15A NCAC 2D .0605, the Permittee shall demonstrate compliance with the emission limit(s) by testing the emission source(s) for the specified pollutant(s) as follows:

Affected Source(s)	Pollutant	Target Parameter	Test Method
Hot Mix Asphalt Plant (80 MMBtu/hr. maximum heat input capacity) (HMA-1)	Filterable Particulate Matter	As per 15A NCAC 2D .0506 and 2D .0524	Method 5
	Condensable Particulate Matter		Method 202
	Visible Emissions	20% Opacity	Method 9

- a. All performance tests shall be conducted in accordance with EPA Reference Methods, contained in 40 CFR 60, Appendix A;
- b. The EPA Administrator retains the exclusive right to approve equivalent and alternative test methods, continuous monitoring procedures, and reporting requirements;
- c. The Permittee shall arrange for air emission testing protocols to be provided to the DAQ prior to testing. Testing protocols are not required to be pre-approved by the DAQ prior to testing. The DAQ shall review testing protocols for pre-approval prior to testing if requested by the Permittee at least 45 days before conducting the test.
- d. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least 30 days notice of any required performance tests.
- e. Within 60 days after achieving the maximum production rate at which the source will be operated, but not later than 180 days after the initial start-up of the affected source, for each fuel permitted, the Permittee shall conduct the required performance

test(s) and submit two copies of a written report of the test(s) to the Regional Supervisor, DAQ.

- f. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.
- g. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate, or at a lesser rate if specified by the Director or his delegate.
- h. All associated testing costs are the responsibility of the Permittee.

17. FABRIC FILTER REQUIREMENTS including cartridge filters, baghouses, and other dry filter particulate collection devices - As required by 15A NCAC 2D .0611, particulate matter emissions shall be controlled as described in the permitted equipment list.

- a. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform, at a minimum, an annual (for each 12 month period following the initial inspection) internal inspection of each particulate collection device system. In addition, the Permittee shall perform periodic inspections and maintenance as recommended by the equipment manufacturer.
- b. Recordkeeping Requirements - The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a logbook. Records of all maintenance activities shall be recorded in the logbook. The logbook (in written or electronic format) shall be kept on-site and made available to DAQ personnel upon request.

18. TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING

REQUIREMENT - Pursuant to 15A NCAC 2D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the permit limits in the table below shall not be exceeded. The Permittee has submitted a toxic air pollutant dispersion modeling analysis dated April 22, 2021 for the facility's toxic air pollutant emissions as listed in the below table. The modeling analysis was reviewed and approved by the DAQ Air Quality Analysis Branch (AQAB) on July 29, 2021. Placement of the emission sources, configuration of the emission points, and operation of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memo.

Affected Source(s)	Toxic Air Pollutant	Emission Limit
Propane/Natural Gas/No. 2 Fuel Oil/Recycled No. 2 Fuel Oil/Recycled No. 4 Fuel Oil-fired drum type hot mix asphalt plant (80 MMBtu/hr. maximum heat input capacity) (HMA-1)	Formaldehyde (50-00-0)	7.75E-01 lb./hr.
	Mercury, vapor (Component of HGC) (7439-97-6)	1.56E-02 lb./day
	Nickel metal (Component of NIC) (7440-02-0)	3.79E-01 lb./day

Affected Source(s)	Toxic Air Pollutant	Emission Limit
	Arsenic & Compounds (total mass of elemental AS, arsine and all inorganic compounds) (ASC (7778394))	1.23 lb./year
	Benzene (71-43-2)	8.54E+02 lb./year
Natural Gas/No.2 fuel oil-fired Asphalt Cement Heater (1.2 MMBtu/hr. maximum heat input capacity) (ES-ACH1)	Formaldehyde (50-00-0)	2.83E-04 lb./hr.
	Mercury, vapor (Component of HGC) (7439-97-6)	8.64E-05 lb./day
	Nickel metal (Component of NIC) (7440-02-0)	8.67E-05 lb./year
	Arsenic & Compounds (total mass of elemental AS, arsine and all inorganic compounds) (ASC (7778394))	4.20E-02 lb./year
	Benzene (71-43-2)	2.15E-02 lb./year
Natural Gas/No.2 fuel oil-fired Asphalt Cement Heater (1.1 MMBtu/hr. maximum heat input capacity) (ES-ACH2)	Formaldehyde (50-00-0)	2.59E-04 lb./hr.
	Mercury, vapor (Component of HGC) (7439-97-6)	7.92E-05 lb./day
	Nickel metal (Component of NIC) (7440-02-0)	7.92E-05 lb./day
	Arsenic & Compounds (total mass of elemental AS, arsine and all inorganic compounds) (ASC (7778394))	3.85E-02 lb./year
	Benzene (71-43-2)	1.97E-02 lb./year
Hot Mix Asphalt Storage Silo (150 tons Maximum Capacity) (HMA-Silo1)	Formaldehyde (50-00-0)	2.10E-02 lb./hr.
	Benzene (71-43-2)	8.54 lb./year
Truck Loadout Point (RMC-LO1)	Nickel metal (Component of NIC) (7440-02-0)	4.62E-03 lb./day
	Arsenic & Compounds (total mass of elemental AS, arsine and all inorganic compounds) (ASC (7778394))	5.77E-01 lb./year
Asphalt Loadout Operation Silo 1 (HMA-LO1)	Formaldehyde (50-00-0)	9.15E-04 lb./hr.
	Benzene (71-43-2)	4.74 lb./year

a. Restrictions - To ensure compliance with the above limits, the following restrictions shall apply:

i. Maintain compliance with the operating restrictions of Condition A.22.

19. 15A NCAC 2D .1111 "MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY"- For the ten (10) generators (ID Nos. ES-PGEN1, ES-PGEN2, ES-PGEN3, GEN-1, GEN-1a, GEN-2, GEN-3, GEN-4, GEN-5, GEN-7), classified as **new** stationary RICE located at an area source of HAP

emissions, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111, as promulgated in 40 CFR 63, Subpart ZZZZ - "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines," including Subpart A "General Provisions."

- a. In accordance with 40 CFR §63.6590(c)(1), this source(s) shall meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines or 40 CFR 60 Subpart JJJJ for spark ignition engines. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ or Subpart A.

20. CONTROL AND PROHIBITION OF ODOROUS EMISSIONS - As required by 15A NCAC 2D .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 boundary.

21. ZONING SPECIFIC CONDITION - In accordance with 15A NCAC 2Q .0304, prior to construction or operation of the facility under this permit, the Permittee shall comply with all lawfully adopted local ordinances that apply to the facility at the time of construction or operation of the facility. The local zoning authority shall have the responsibility of enforcing all lawfully adopted local zoning or subdivision ordinances.

22. LIMITATION TO AVOID 15A NCAC 2Q .0501 - Pursuant to 15A NCAC 2Q .0315 "Synthetic Minor Facilities," to avoid the applicability of 15A NCAC 2Q .0501 "Purpose of Section and Requirement for a Permit," as requested by the Permittee, facility-wide emissions shall be less than the following:

Pollutant	Emission Limit (Tons per consecutive 12-month period)
SO ₂	100
NO _x	100
CO	100

- a. Operations Restrictions - To ensure emissions do not exceed the limitations above, the following restrictions shall apply:
 - i. The amount of asphalt produced shall be less than 600,000 tons per consecutive 12-month period.
 - ii. The sulfur content of the Recycled No. 4 fuel oil shall be limited to 0.5% sulfur by weight.
 - iii. The sulfur content of the No. 2 fuel oil combusted in the Asphalt Cement Heaters (ES-ACH1 and ES-ACH2) shall be limited to 15 PPM sulfur by weight.
 - iv. The production of the quarry operations shall be less than 5,694,000 tons per consecutive 12-month period.

- v. The total fuel consumption of the three Natural Gas/Propane Fired Generators (ES-PGEN1, ES-PGEN2, and ES-PGEN3) shall not exceed 119,697 MMBtu/yr. per consecutive 12-month period.
 - vi. The total fuel consumption of the smaller generators associated with the quarry equipment (GEN-1, GEN-1A, GEN-2, GEN-3, GEN-4, GEN-5, and GEN-7) shall be less than 569,746 gallons of No. 2 Fuel Oil per consecutive 12-month period
 - vii. If multiple fuels are used, emissions should be determined using the sum of the individual emissions rates.
- b. Inspection and Maintenance Requirements -
- i. Catalytic Oxidizer Requirements - Emissions shall be controlled as described in the permitted equipment list. To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform periodic inspections and maintenance (I&M) as recommended by the manufacturer. As a minimum, the I&M program will include an annual (for each 12-month period following the initial inspection) internal inspection of each primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.
- c. Recordkeeping Requirements
- i. The Permittee shall record monthly and total monthly (for the previous 12 months) the following:
 - A. The amount [tons] of asphalt produced.
 - B. The facility-wide SO₂, NO_x, and CO emissions.
 - C. The total fuel consumption of the three Natural Gas/Propane Fired Generators (ES-PGEN1, ES-PGEN2, and ES-PGEN3).
 - D. The total No. 2 Fuel Oil consumption, in gallons, of the smaller generators associated with the quarry equipment (GEN-1, GEN-1A, GEN-2, GEN-3, GEN-4, GEN-5, GEN-7).
 - E. The amount of non-metallic mineral product [tons] produced by the quarry.
 - ii. Fuel supplier certification shall be kept on-site and made available to DAQ personnel upon request.
 - iii. A log book (in written or electronic format) shall be kept on site for Catalytic Oxidizers (CD-PGEN1 through CD-PGEN3) and made available to Division of Air Quality personnel upon request. The Permittee shall record all inspection, maintenance and monitoring requirements listed above in the log book. Any variance from the manufacturer's recommendations shall be investigated with corrections made and date of actions recorded in the log book.
- d. Reporting Requirements - Within 30 days after each calendar year quarter, regardless of the actual emissions, the Permittee shall submit the following:

- i. emissions and/or operational data listed below. The data should include monthly and 12-month totals for the previous 14 months. The data must be calculated for each of the three 12-month periods over the previous 14 months.
 - A. The amount [tons] of asphalt produced.
 - B. The facility-wide SO₂, NO_x and CO emissions [tons].
 - C. The total fuel consumption of the three Generators (ES-PGEN1, ES-PGEN2, and ES-PGEN3).
 - D. The total No. 2 Fuel Oil consumption, in gallons, of the smaller generators associated with the quarry equipment (GEN-1, GEN-1A, GEN-2, GEN-3, GEN-4, GEN-5, GEN-7).
 - E. The amount of non-metallic mineral product [tons] produced by the quarry.
- ii. copies of the fuel certification records for the previous 3 months
- iii. summary of all control device monitoring and recordkeeping activities described above for the previous 3 months

23. LIMITATION TO AVOID 15A NCAC 2D .0530 "PREVENTION OF SIGNIFICANT DETERIORATION" - In accordance with 15A NCAC 2Q .0317, to comply with this permit and avoid the applicability of 15A NCAC 2D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, emissions shall be limited as follows:

Affected Source(s)	Pollutant	Emission Limit (Tons Per Consecutive 12-month Period)
Facility Wide	SO ₂	250

24. VENDOR SUPPLIED RECYCLED No(s). 2 and 4 FUEL OIL REQUIREMENTS - In accordance with Rule 2Q .0317, the Permittee is avoiding the applicability of Rule 2Q .0700 by using recycled fuels which are equivalent to their virgin counterparts. The Permittee is allowed to use the recycled fuel oil(s) as follows:

- a. Specifications - The recycled fuel oil(s) shall be equivalent to unadulterated fossil fuel by meeting the following criteria:

Constituent/Property	Allowable Level
Arsenic	1.0 ppm maximum
Cadmium	2.0 ppm maximum
Chromium	5.0 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum

Flash Point	
No. 2	100°F minimum
No. 4	130°F minimum
Sulfur	
No. 2	0.5% maximum (by weight)
No. 4	2.0% maximum (by weight)
Ash	1.0% maximum

- b. The Permittee is responsible for ensuring that the recycled fuel oil(s), as received at the site, meet(s) the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil(s).
- c. Recordkeeping Requirements - The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
 - i. The actual amount of recycled fuel oil(s) delivered to, and combusted at the facility on an annual basis.
 - ii. Each load of recycled fuel oil received shall include the following:
 - A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination.
 - B. A batch specific analytical report that contains an analysis for all constituents / properties listed above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received.
 - C. Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered.
 - D. A certification indicating that the recycled fuel oil does not contain detectable PCBs (<2ppm).
- d. The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an annual basis or without notice.

25. RECYCLED ASPHALT SHINGLE REQUIREMENTS - In accordance with Rule 2Q .0317, the Permittee is avoiding the applicability of Rule 2Q .0700 and 2D .1100 for asbestos, and 40 CFR 61, Subpart M, *National Emission Standard for Asbestos* by using post-consumer reclaimed asphalt roofing shingles (also known as PRAS and herein denoted as recycled shingles) which are equivalent to their virgin or unadulterated counterparts. The Permittee is allowed to use the recycled shingles and associated asphalt roofing materials provided the following conditions are met:

Specifications - The recycled shingles shall be considered equivalent to unadulterated asphalt and

aggregate for use in manufacturing of asphalt concrete by meeting the following criteria:

The recycled shingles and roofing materials are certified to be free of asbestos containing material (ACM). ACM is defined as materials containing more than one percent (1 %) of asbestos. This certification shall be provided by demonstration that the materials sampled are representative of the recycled asphalt roofing materials and contain less than 1 percent asbestos or are certified to be asbestos free as measured by the method specified in appendix E, 40 CFR 763, Section 1, polarized light microscopy (PLM). Certification shall be provided by NC-accredited Asbestos Inspectors or Roofing Supervisors to sample the PRAS to meet the above criteria. Accreditation shall be obtained through the Division of Public Health's Health Hazards Control Unit.

- a. The Permittee is responsible for ensuring that the recycled shingles and roofing materials, as used at the site, meet the approved criteria for unadulterated materials including meeting minimum sampling criteria as specified by best practices. These practices shall include visual inspection of each load for suspect ACM and a sampling of at least one sample event per 100 tons of recycled shingles received for processing.
 - i. Each load or batch of recycled asphalt roofing materials purchased from or provided by an outside vendor shall include a certification that the material does not contain ACM and that it was tested in accordance with the best practices specified above, or
 - ii. If certification of the incoming recycled shingle material is not provided at delivery by an outside vendor, the Permittee shall arrange for testing and certification of the material as not being ACM, meeting the specifications outlined above, prior to use in the process. The Permittee shall arrange for the results of such sampling and testing to be provided in a manner and form consistent with meeting the recordkeeping requirements cited below.
- b. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the recycled shingles and asphalt roofing materials.
- c. Recordkeeping Requirements - The Permittee shall maintain certifications that the materials received and used are not ACM. These certifications shall be maintained at the facility for a minimum of three years, and shall be made available to representatives of the DAQ upon request. In addition, accurate records of the following:
 - i. The actual amount of recycled shingles delivered to and used at the facility in the production of asphalt concrete pavement.
 - ii. Each load or batch of recycled shingles shall include the following:
 - A. A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination.
 - B. A batch specific analytical report that contains an analysis for all constituents / properties listed above in the specification. Analytical results of the samples representative of the recycled shingles / roofing materials shipment from the vendor shall be no more than one year old when received.

- C. Batch signature information consisting of the following: a batch number, batch weight or volume of recycled shingles / roofing materials delivered.
- D. A certification statement indicating that the recycled shingles were sampled in accordance with best practices and tested according to appendix E, 40 CFR 763, Section 1 and do not contain ACM or are otherwise asbestos-free as determined by PLM prior to grinding.
- d. The Permittee shall be obligated to comply with any additional regulations or obtain any additional permits associated with the receipt and/or storage of the recycled asphalt roofing materials. This permit condition to use these materials in the asphalt concrete manufacturing process creates no waiver from other applicable laws and regulations.
- e. The DAQ reserves the right to require additional testing and/or monitoring of the recycled shingles/roofing materials in accordance with Rule 2Q. 0317.

26. TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT - Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions, where one or more emission release points are obstructed or non-vertically oriented, do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711(a). The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711(a).

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant	Carcinogens (lb./yr.)	Chronic Toxicants (lb./day)	Acute Systemic Toxicants (lb./hr.)	Acute Irritants (lb./hr.)
Acetaldehyde (75-07-0)				6.8
Acrolein (107-02-8)				0.02
Ammonia (as NH3) (7664-41-7)				0.68
Benzo(a)pyrene (Component of 83329/POMTV & 56553/7PAH) (50-32-8)	2.2			
Beryllium Metal (unreacted) (Component of BEC) (7440-41-7)	0.28			

Pollutant	Carcinogens (lb./yr.)	Chronic Toxicants (lb./day)	Acute Systemic Toxicants (lb./hr.)	Acute Irritants (lb./hr.)
Cadmium Metal, elemental, unreacted (Component of CDC) (7440-43-9)	0.37			
Carbon disulfide (75-15-0)		3.9		
Chromium (VI) Soluble Chromate Compounds (Component of CRC) (SolCR6)		0.013		
Dichlorobenzene(p), 1,4- (106-46-7)				16.8
Fluorides (sum of all fluoride compounds as mass of F ion) (16984-48-8)		0.34	0.064	
Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8 (57653-85-7)	0.0051			
Hexane, n- (110-54-3)		23		
Hydrogen chloride (hydrochloric acid) (7647-01-0)				0.18
Hydrogen sulfide (7783-06-4)		1.7		
MEK (methyl ethyl ketone, 2- butanone) (78-93-3)		78		22.4
Manganese & compounds (MNC)		0.63		
Methyl chloroform (71-55-6)		250		64
Methylene chloride (75-09-2)	1600		0.39	
Perchloroethylene (tetrachloroethylene) (127-18-4)	13000			
Phenol (108-95-2)			0.24	
Styrene (100-42-5)			2.7	
Tetrachlorodibenzo-p-dioxin, 2,3,7,8- (Component of CLDC & 83329/POMTV) (1746-01-6)	0.0002			
Toluene (108-88-3)		98		14.4
Xylene (mixed isomers) (1330- 20-7)		57		16.4

B. GENERAL CONDITIONS AND LIMITATIONS

1. In accordance with G.S. 143-215.108(c)(1), TWO COPIES OF ALL DOCUMENTS, REPORTS, TEST DATA, MONITORING DATA, NOTIFICATIONS, REQUESTS FOR

RENEWAL, AND ANY OTHER INFORMATION REQUIRED BY THIS PERMIT shall be submitted to the:

Regional Supervisor
North Carolina Division of Air Quality
Winston-Salem Regional Office
450 West Hanes Mill Road
Suite 300
Winston-Salem, NC 27105
336-776-9800

For identification purposes, each submittal should include the facility name as listed on the permit, the facility identification number, and the permit number.

2. RECORDS RETENTION REQUIREMENT - In accordance with 15A NCAC 2D .0605, any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. These records must be kept on site for a minimum of 2 years, unless another time period is otherwise specified.
3. ANNUAL FEE PAYMENT - Pursuant to 15A NCAC 2Q .0203(a), the Permittee shall pay the annual permit fee within 30 days of being billed by the DAQ. Failure to pay the fee in a timely manner will cause the DAQ to initiate action to revoke the permit.
4. EQUIPMENT RELOCATION - In accordance with 15A NCAC 2Q .0301, a new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.
5. REPORTING REQUIREMENT - In accordance with 15A NCAC 2Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application regarding facility emissions;
 - b. changes that modify equipment or processes of existing permitted facilities; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

6. In accordance with 15A NCAC 2Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. In accordance with G.S. 143-215.108(c)(1), the facility shall be properly operated and maintained at all times in a manner that will effectuate an overall reduction in air pollution.

Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air cleaning device(s) and appurtenances.

7. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators must obtain a new air permit from the DAQ.
8. In accordance with G.S. 143-215.108(c)(1), this issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the effective date of this permit.
9. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.
10. In accordance with 15A NCAC 2D .0605, reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, DAQ at such intervals and in such form and detail as may be required by the DAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.
11. A violation of any term or condition of this permit shall subject the Permittee to enforcement pursuant to G.S. 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.
12. Pursuant to North Carolina General Statute 143-215.3(a)(2), no person shall refuse entry or access to any authorized representative of the DAQ who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
13. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with any applicable Federal, State, or Local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Waste Management.
14. PERMIT RETENTION REQUIREMENT - In accordance with 15A NCAC 2Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee must make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.
15. CLEAN AIR ACT SECTION 112(r) REQUIREMENTS - Pursuant to 15A NCAC 2D .2100 "Risk Management Program," if the Permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the Federal Clean Air Act, then the Permittee is required to register this plan with the USEPA in accordance with 40 CFR Part 68.
16. PREVENTION OF ACCIDENTAL RELEASES - GENERAL DUTY - Pursuant to Title I Part A Section 112(r)(1) of the Clean Air Act "Hazardous Air Pollutants - Prevention of

Accidental Releases - Purpose and General Duty," although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release. **This condition is federally-enforceable only.**

17. GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS - If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval. Additionally, in accordance with 15A NCAC 2D .0605, the Permittee shall follow the procedures for obtaining any required audit sample and reporting those results.

Permit issued this the 30th of July, 2021.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

T. Ray Stewart, Jr., P.E., CPM
Regional Supervisor
By Authority of the Environmental Management Commission

Air Permit No. 10694R00

Insignificant / Exempt Activities

Source	Exemption Regulation	Source of TAPs?	Source of Title V Pollutants?
IES-1 - Used Oil Storage Tank associated with Asphalt Plant (20,000-gallon capacity)	2Q .0102 (g)(4)	Yes	Yes
IES-2 - Used Oil Storage Tank associated with Asphalt Plant (20,000-gallon capacity)			
IES-3 - Liquid Asphalt Tank (30,000-gallon capacity)	2Q .0102 (g)(14)(B)		
IES-4 - Liquid Asphalt Tank (30,000-gallon capacity)			
IES-5 - Diesel Fuel Storage Tank associated with Asphalt Plant (20,000-gallon capacity)	2Q .0102 (g)(4)		
IES-6 - Diesel Fuel Storage Tank associated with Asphalt Plant (20,000-gallon capacity)			
IES-13 - Diesel Fuel Storage Tank associated with Quarry (20,000-gallon capacity)			
IES-14 - Diesel Fuel Storage Tank associated with Quarry (20,000-gallon capacity)			
IES-15 - Propane Storage Tank (100,000-gallon capacity)			

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1. Because an activity is exempted from being required to have a permit or permit modification does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
 2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit."
 3. Sample permit conditions showing the regulatory requirements for exempt sources subject to NESHAP, NSPS, and NCAC rules may be found here: <https://deq.nc.gov/aqpermitconditions>