

PUBLIC NOTICE OF INTENT TO ISSUE AN AIR QUALITY PERMIT

**FORSYTH COUNTY
OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION
WINSTON-SALEM, NORTH CAROLINA**

October 27, 2026

Notice is hereby given by the Forsyth County Office of Environmental Assistance and Protection (EAP) to the public for an opportunity to review and comment on a draft air quality permit for

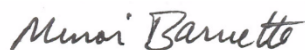
**Maymead, Inc. – Clemmons Plant
Winston-Salem, NC 27103
Permit #01101**

This facility has applied for approval to construct and to operate a hot mix asphalt plant to be located within the Village of Clemmons at 6010 Gun Club Road, Winston-Salem, NC. The permit restricts emissions of regulated air pollutants to avoid the applicability of Section 3Q .0500 "Title V Procedures" of the Forsyth County Air Quality Control Ordinance and Technical Code. A copy of the draft permit and statement of basis is available at the EAP's website:

http://www.forsyth.cc/EAP/public_notices.aspx

Additional information regarding the draft permit may be obtained from the Office of Environmental Assistance and Protection, Forsyth County Government Center, 201 N.Chestnut Street, Winston-Salem, NC 27101-4120; telephone (336) 703-2440.

A public hearing concerning this notice has been scheduled for December 1, 2026, from 5:30 PM until 7:30 PM at the Clemmons Public Library located at 6365 James Street in Clemmons, NC. Persons wishing to speak at the public hearing may preregister by emailing their name and address to airpermittingnotification@forsyth.cc. Registrants will be allotted 3 minutes each and be heard in order of registration. The public may also submit written comments on these proceedings to the agency at the mailing address above or by email to aircomments@forsyth.cc on or before December 3, 2026, the close of the public comment period.



Minor Barnette, Director
Forsyth County Office of Environmental Assistance and Protection

OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION

**FORSYTH COUNTY GOVERNMENT CENTER
201 NORTH CHESTNUT STREET
WINSTON-SALEM, NC 27101-4120**

**PERMIT TO CONSTRUCT/OPERATE
AIR QUALITY CONTROL
CLASS: Synthetic Minor (SM)**

PERMIT NUMBER	EFFECTIVE DATE	EXPIRATION DATE	RENEWAL DUE
01101			

**Facility Name: Maymead, Inc. – Clemmons Plant
Mailing Address: PO Box 911
City, State, ZIP Code: Mountain City, TN 37683**

**Facility Location: 6010 Gun Club Road
City: Clemmons**

In accordance with the provisions set forth in Chapter 3 of the Forsyth County Code, "Air Quality Control", the facility listed above is hereby authorized to construct and operate air emission sources and/or air cleaning devices consisting of equipment outlined in *Section 1* of this permit and in accordance with conditions contained within this permit.

The construction and operation of equipment in this permit shall be in accordance with all design specifications, operating parameters, and other information submitted and which is the basis for the issuance of this permit. Such information shall be considered part of this permit. The facility must comply with all applicable rules and regulations whether or not these rules and regulations are included as part of the permit.

PERMIT CONTENTS:

SECTION 1: FACILITY-WIDE EMISSION SOURCE IDENTIFICATION
SECTION 2: GENERAL CONDITIONS
SECTION 3: EMISSION SOURCE CONDITIONS
SECTION 4: LOCAL AIR TOXICS CONDITIONS
SECTION 5: REPORTING REQUIREMENTS
SECTION 6: CONSTRUCTION/MODIFICATION

Peter B. Lloyd, Ph.D., P.E., Manager
Compliance Assistance & Permitting Division

DATE:

**Maymead, Inc. – Clemmons Plant
Permit to Construct/Operate #01101
Draft**

**SECTION 1
FACILITY-WIDE EMISSION SOURCE IDENTIFICATION**

1.1 Permitted equipment

Emission Source ID No.	Emission Source Description	Control System ID No.	Control System Description	Emission Point ID No.
ES-1	Drum Mixer/Dryer firing natural gas and/or No. 4 fuel oil/recycled fuel oil with a maximum heat input of 75 MMBtu/hr	CD-1	Astec pulse jet baghouse operating at 62,000 CFM and containing 896 14 oz. aramid fiber bags	EP-1
ES-3	Two (2) hot mix asphalt silos (200 tons capacity each)	None	None	Fugitive
ES-3A	Two (2) truck loadout operations	None	None	Fugitive
ES-4	Portable Recycled Asphalt Pavement (RAP) system consisting of a crusher, screen, and conveyor	None	Wet suppression (with crusher)	Fugitive

**SECTION 2
GENERAL CONDITIONS**

- 2.1 Compliance provisions** – The permittee shall comply with all requirements under rules in Subchapter 3D and Subchapter 3Q of the Forsyth County Air Quality Technical Code (FCAQTC) including any applicable federal standards referenced in Section 3D-0524, New Source Performance Standards (40 CFR part 60), 3D-1110, National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61), and 3D-1111, Maximum Achievable Control Technology (40 CFR Part 63). **[Sec. 3-0102]**
- 2.2 Duty to comply** – Failure of the permittee to adhere to the terms and conditions of the permit shall be grounds for:
- (a) enforcement action;
 - (b) permit termination, revocation and reissuance, or modification; or
 - (c) denial of permit renewal applications.
- [Sec. 3Q-0314(c)]**

- 2.3 **Permit fees** - If, within 30 days after being billed, the permittee fails to pay an annual permit fee required under Section 3Q-0200 of the FCAQTC, the Director may initiate action to terminate this permit under the authority of Sec. 3Q-0309 or Sec. 3Q-0519 of the FCAQTC. Disputes shall be submitted in writing to the Director. Payment shall be made regardless of the dispute. **[Sec. 3Q-0206(b)]**
- 2.4 **Good air pollution control practice** - At all times, the equipment listed in *Section 1* shall be operated and maintained in a manner consistent with the design and emissions handling as applied for in the application. **[Sections 3D-0501(c) and 3Q-0308(a)(1)]**
- 2.5 **Odor** - No person shall cause or permit the emission of odors beyond the property line of the facility which are harmful, irritating or which unreasonably interfere with the use and enjoyment of any person's properties or living conditions, or any public properties or facilities. No violation shall be cited provided that the best practical treatment, maintenance, and control of odor currently available is used. **[Sec. 3D-0522]**
- 2.6 **Fugitive dust control requirement** - 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 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 60, Appendix A), the owner or operator may be required to submit and implement a fugitive dust control plan as described in FCAQTC 3D-0540(f). **[Sec. 3D-0540]**
- 2.7 **Permit revocation/modification** - This permit is subject to revocation or modification by the Director upon a determination that information contained in the application or presented in support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. The operation of a facility or source after its permit has been terminated is a violation of Section 3Q-0300 of the FCAQTC. **[Sec. 3Q-0309]**
- 2.8 **Inspection entry/access** - No person shall refuse entry or access to any authorized representative of the Forsyth County Office of Environmental Assistance and Protection ("Office") who requests entry or access at reasonable times and using reasonable safety practices 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. **[Sec. 3Q-0309(a)(5)]**
- 2.9 **Retention of permit and application** - The permittee shall retain a copy of all active permits issued under Subchapter 3Q of the FCAQTC at the facility identified in this permit. The permittee shall retain for the duration of the permit term one complete copy of the application package and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of this Office upon request. **[Sections 3Q-0110 and 3Q-0304(m)]**
- 2.10 **Correcting submittals** - The permittee has a continuing obligation to submit relevant facts pertaining to permit applications and to correct incorrect information on permit applications. **[Sec. 3Q-0304(l)].**

- 2.11 **New constructions/modifications** - The permittee shall not allow or begin construction or operation of a new or modified source of regulated or listed air pollutant, other than from those sources exempted under FCAQTC Sec. 3Q -0102(c), without first applying for and obtaining an air quality permit. **[Sec. 3Q-0101]**
- 2.12 **Compliance testing** – If emissions testing is required by this Office or the U.S. EPA, or if the permittee desires to conduct testing in support of a permit application, the following conditions shall apply:
- (a) **Obligation** – The permittee shall perform any required test at his own expense. **[Sec. 3D-2602(a)]**.
 - (b) **Means to allow sampling and measurement** – The permittee shall provide sampling ports, pipes, lines, or appurtenances for the collection of samples and data required by the test procedure; scaffolding and safe access to the sample and data collection locations; and light, electricity, and other utilities required for sample and data collection. **[Sec. 3D-2602(e)]**
 - (c) **Test methods** – Testing shall be conducted in accordance with FCAQTC Section 3D .2600 except as may be otherwise required in FCAQTC Sections 3D-0524, 3D-0912, 3D-1110, 3D-1111, 3D-1415 or a permit condition specific to the emissions source. Requests to use an alternative test method or procedure must be made in writing at least 45 days prior to the test and approved by this Office. Alternatives to test methods or procedures specified for emissions sources subject to test requirements under 40 CFR 60, 40 CFR 61 or 40 CFR 63, may require approval by the U.S. EPA. **[Sections 3D-2601, 2602(i) and 3Q-0308(a)(1)]**
 - (d) **Process rate** – The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. **[Sec. 3D-2602(g)]**
 - (e) **Protocol** – The permittee shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved prior to air pollution testing. Emission testing protocols must be submitted at least 45 days before conducting the test for pre-approval prior to testing if requested by the permittee. **[Sec. 3D-2602(c)]**
 - (f) **Notification** – The permittee shall notify this Office at least 15 days before beginning the test so that a representative of this Office may be present to observe the test. **[Sec. 3D-2602(d)]**
 - (g) **Emissions test report** – The final air emission test report shall be submitted to this Office not later than 30 days after sample collection. The permittee may request an extension to submit the final test report if the extension request is a result of actions beyond the control of the permittee. Unless otherwise specified in the applicable permit or during the course of the protocol review, the results of the tests shall be expressed in the same units as the emission limits given in the rule for which compliance is being determined. **[Sec. 3D-2602(f) & (h)]**

2.13 **Information requests by Director** - The permittee shall furnish to this Office, in a timely manner, any reasonable information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. **[Sec. 3Q-0309(b)]**

2.14 **General recordkeeping and reporting** – The permittee shall maintain:

- (a) records detailing all malfunctions under Sec. 3D-0535 of the FCAQTC,
- (b) records of all testing conducted under rules in Subchapter 3D of the FCAQTC,
- (c) records of all monitoring conducted under rules in Subchapter 3D and Subchapter 3Q of the FCAQTC,
- (d) records detailing activities relating to any compliance schedule in Subchapter 3D of the FCAQTC, and
- (e) for unpermitted sources, records necessary to determine compliance with rules in Subchapter 3D and Subchapter 3Q of the FCAQTC

Copies of all records and reports required by this permit shall be retained by the permittee for a period of three years after the date on which the record was made or the report submitted, except that the Director may extend the retention period in particular instances when necessary to comply with other County or federal requirements or when compliance with a particular standard requires documentation for more than three years. All records and reports generated required by this permit shall be made available to personnel of this Office for inspection.

No person shall falsify any information required by a rule in Subchapter 3D or a permit issued under Subchapter 3Q of the FCAQTC. No person shall knowingly submit any falsified information required by a rule in Subchapter 3D or a permit issued under Subchapter 3Q of the FCAQTC. (5-24-99) **[Sec. 3D-0605(a), (e), (f) and (h)]**

2.15 **Insignificant Activities** – For sources exempt from permitting requirements under FCAQTC Sec. 3Q .0102, the permittee shall comply with all applicable emissions standards and requirements including 40 CFR Part 60, New Source Performance Standards and 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants. Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The permittee shall have available at the facility at all times and made available to an authorized representative of this Office upon request, documentation, including calculations if necessary, to demonstrate compliance for emission sources exempt from permitting requirements. **[Sections 3Q-0102(d) and 0308(a)(1)]**

New Source Performance Standards (NSPS) General Conditions - [Sec. 3D-0524]

Following are conditions found in the 40 CFR Part 60 NSPS General Provisions. The following conditions only apply to sources subject to a relevant standard of a subpart of 40 CFR Part 60 except when otherwise specified in a particular subpart or in a relevant standard.

- 2.16 **NSPS - General provisions** - The permittee shall comply with all applicable requirements specified in the general provisions of the New Source Performance Standards (40 CFR 60 Subpart A) including but not limited to requirements concerning notifications, testing, monitoring, recordkeeping, modifications and reconstruction. **<40 CFR 60 Subpart A> [Sec. 3D-0524]**
- 2.17 **NSPS - Good air pollution control practice** - At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. **<40 CFR 60.11(d)> [Sec. 3D-0524]**
- 2.18 **NSPS - Circumvention** - Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard under 40 CFR 60. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. **<40 CFR 60.12> [Sec. 3D-0524]**
- 2.19 **NSPS - Maintain records - startup/shutdown/malfunction** - The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. **<40 CFR 60.7(b)> [Sec. 3D-0524]**
- 2.20 **NSPS - Files available for inspection** - The permittee shall maintain a file of all measurements, including, if applicable, performance test measurements and all other information required in 40 CFR 60. This file shall be kept in a permanent form suitable for inspection and shall be retained at least two years following the date of such measurements, maintenance, reports, and records. **<40 CFR 60.7(f)> [Sec. 3D-0524]**
- 2.21 **NSPS - Performance testing facilities provided by permittee** - For any performance testing, the permittee shall provide, or cause to be provided, performance testing facilities as follows:
- (a) Sampling ports adequate for the applicable test methods. This includes:
 - (1) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and
 - (2) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - (b) Safe sampling platform(s) with safe access.
 - (c) Utilities for sampling and testing equipment.

- (d) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For purposes of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

<40 CFR 60.8(e)> [Sec. 3D-0524]

2.22 NSPS - Notification requirements - The permittee shall submit to the Office written notification as follows:

- (a) A written notification providing the date construction (or reconstruction as defined in 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such event. An “affected facility” (defined in 40 CFR 60.2) “means, with reference to a stationary source, any apparatus to which a standard is applicable”. **<40 CFR 60.7(a)(1)> [Sec. 3D-0524]**
- (b) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such event. **<40 CFR 60.7(a)(3)> [Sec. 3D-0524]**
- (c) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under the applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, and the expected completion date of the change. The Office may request additional relevant information subsequent to this notice. **<40 CFR 60.7(a)(4)> [Sec. 3D-0524]**
- (d) A notification of the anticipated date for conducting the opacity observations required by 40 CFR 60.11(e)(1). This notification shall be postmarked no less than 30 days prior to testing. **<40 CFR 60.7(a)(6)> [Sec. 3D-0524]**

2.23 NSPS - Notice of performance test - The permittee shall provide the Office at least 30 days prior notice of any performance test to afford the Office the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay in conducting the test, the permittee shall notify the Office as soon as possible of any delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Office. **<40 CFR 60.8(d)> [Sec. 3D-0524]**

NOTE TO PERMITTEE:

OTHER REPORTING REQUIREMENTS MAY BE LISTED IN SUBSEQUENT SECTIONS FOR SPECIFIC EMISSION SOURCES OR GROUPS OF SOURCES. READ THESE SECTIONS CAREFULLY.

SECTION 3 EMISSION SOURCE CONDITIONS

3.1 General emission source emission conditions

- (a) **Limitation to avoid applicability of Section 3Q-0500 (Title V)** - To avoid the applicability of Section 3Q-0500, as requested by the permittee, facility-wide emissions of carbon monoxide shall not exceed 100 tons per consecutive 12-month period.
- (1) To ensure federal enforceability of these limitations, the permittee requested and will be required to enforce the following production limitations:
- (i) 325 tons maximum hourly asphalt production at this facility.
 - (ii) 2,500 tons maximum daily asphalt production at this facility.
 - (iii) 300,000 tons maximum annual asphalt production at this facility.
- (2) For compliance purposes, the permittee shall record hourly, daily, and monthly quantities, (in tons) of asphalt processed at this facility, and calculate rolling 12 month totals at the end of each month
- (3) The records required in paragraph (2) above shall be maintained in a logbook or electronically at the facility and be made available to Office personnel upon request.
- (4) The records required in paragraph (2) above shall remain on site and available for inspection upon request by Office personnel for a minimum of five years.
- [Sections 3Q-0315 and 3Q-0308(a)(1)]**
- (b) **Control of visible emissions** - For sources manufactured after July 1, 1971, visible emissions shall not be more than 20% opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20% opacity if:
- (1) No six-minute period exceeds 87% opacity;
 - (2) No more than one six-minute period exceeds 20% opacity in any hour; and
 - (3) No more than four six-minute periods exceed 20% opacity in any 24-hour period.
- [Sec. 3D-0521(d)]**
- (c) **Sulfur dioxide allowable emission rate** - Emissions of sulfur dioxide from any source of combustion at the facility shall not exceed 2.3 pounds of sulfur dioxide per million Btu input. **[Sec. 3D-0516(a)]**

3.2 **Specific emission source permit conditions for ES-1 (Hot Mix Rotary Drum Mix Asphalt Plant with Fabric Filter Control)**

(a) **Particulates emission standards**

- (1) Particulate matter emissions from the stack outlet shall not exceed 60.0 lb/hr, as determined by U.S. EPA Reference Method 5 (40 CFR 60 - Appendix A, amended December 7, 2020, or the most recent, approved version of the Method at the time of testing) *and* U.S. EPA Reference Method 202 (40 CFR 51 – Appendix M, promulgated December 21, 2020, or the most recent, approved version of the Method at the time of testing).
- (2) 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.
- (3) The permittee shall not cause or allow fugitive non-process dust emissions from areas such as roads, stockpiles, and process areas to cause or contribute to substantive complaints and shall control such emissions as required by Sec. 3D-0540.
- (4) Fugitive visible emissions from the asphalt making process shall not exceed 20 percent opacity averaged over a six-minute period.

[Sections 3D-0506 and 3Q-0308(a)(1)]

(b) **New Source Performance Standards** – This emission source (ES-1) is subject to NSPS Subpart I (Standards of Performance for Asphalt Concrete Plants) and NSPS Subpart A (General Provisions) **<40 CFR 60.90 - 60.93 and 40 CFR 60.1 - 60.19> [Sec. 3D-0524]**

- (1) Visible emissions from any stack or vent shall not exceed 20% opacity when averaged over a six-minute period as determined by U.S. EPA Reference Method 9 (40 CFR 60 Appendix A, amended August 3, 2017, or the most recent, approved version of the Method at the time of testing). **<40 CFR 60.92 and 40 CFR 60.93> [Sec. 3D-0524]**
- (2) Particulate matter emissions from the stack outlet shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf) as determined by U.S. EPA Reference Method 5 (40 CFR 60 - Appendix A, amended December 7, 2020, or the most recent, approved version of the Method at the time of testing). **<40 CFR 60.92 and 40 CFR 60.93> [Sec. 3D-0524]**

(c) **Vendor supplied recycled no. 4 fuel oil requirements** - In accordance with Sec. 3Q-0317 and 3Q-0700, the permittee is avoiding the applicability of Section 3D-1100 by using recycled fuels which have been determined to be equivalent to virgin fuels. The permittee is allowed to use the recycled fuel oil(s) supplied by a vendor that has been approved by the North Carolina Division of Air Quality (NC DAQ) as specified in the NC DAQ, Toxics Protection Branch, *Recycled Oil Management Plan*, March 2009.

- (1) 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. 4	130°F minimum
Sulfur - No. 4	2.0% maximum (by weight)
Ash	1.0% maximum

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 results of any sampling and analysis of the fuel oil(s). **[Section 3Q-0700 and Sec. 3Q-0317]**

- (2) **Recordkeeping Requirements** - The permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the Department 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).

The Office reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an annual basis or without notice.

[Sections 3D-0605(b), 3Q-0315 and 3Q-0308(a)(1)]

3.3 Specific permit conditions for CD-1 (fabric filter controlling emissions from ES-1)

- (a) **Operation of fabric filter** - To ensure compliance with the allowable particulate matter emission rates stated in conditions **3.2(a) and (b)**, particulate emissions shall be captured and controlled by the fabric filter control device listed in *Section 1* at all times while ES-1 is operating. The fabric filter control device shall be operated in accordance with the applicable design criteria. **[Sec. 3D-0613 and 3Q-0308(a)(1)]**
- (b) **Fabric filter maintenance requirements** - The permittee shall:
- (1) perform periodic inspections and maintenance as recommended by the manufacturer. The results of these inspections and maintenance activities shall be recorded in a log book;
 - (2) perform a semi-annual inspection to ensure structural and filter integrity such that optimum control efficiency is achieved. The results of this inspection and any maintenance performed on these control devices shall be recorded in a log book;
 - (3) maintain and operate a pressure drop indicator to continuously measure the differential pressure drop across the fabric filter during all periods of associated emission source utilization and record the pressure reading once during each operating shift. Each control device pressure drop indicator shall be set at zero before operation is begun.
 - (4) develop and implement a quality assurance program (QAP) for the pressure drop indicator. The quality assurance program (QAP) shall include at a minimum, if applicable:
 - (i) procedures and frequencies for calibration,
 - (ii) standards traceability,
 - (iii) operational checks,
 - (iv) maintenance,
 - (v) auditing,
 - (vi) data validation, and
 - (vii) a schedule for implementing the quality assurance program.

A manufacturer's recommended quality assurance procedure may be used as a QAP if it provides an adequate quality assurance program. The QAP shall be maintained on-site and made available to an authorized representative upon request.

- (5) perform a tracer dye test at least twice per calendar year to evaluate the integrity of the fabric filter system and take corrective action where needed. Written notice that the permittee intends to conduct such a test shall be sent to this Office at least 72 hours in advance of the tracer dye test.
- (6) in addition to paragraph (5), perform a tracer dye test for leaks or tears within 72 hours, if requested by this Office to demonstrate proper filter maintenance. This Office shall be contacted at least 24 hours in advance of such testing.
- (7) use 10.0 pounds of tracer compound in each tracer dye test and turn off the fan/draft system within one minute of introducing the compound into the system, when running a tracer dye test described in either paragraph (5) or (6).
- (8) submit a report to this Office showing tracer dye test results within 30 days of the performance of a tracer dye test required in paragraph (5) or (6). The report shall include:
 - (i) the date the tracer dye test was performed,
 - (ii) the date that any bags were replaced,
 - (iii) a description of the bag array with an indication of which bags (if any) were replaced,
 - (iv) how much tracer compound was used for the test, and
 - (v) how long the fan operated once the tracer compound was introduced into the system.

[Sec. 3D-0613 and 3Q-0308(a)(1)]

(c) Fabric filter recordkeeping requirements - The permittee shall:

- (1) maintain a log on site which accurately describes the array of bags in the fabric filter control device and their replacement dates. The log shall also contain the dates that any tracer dust tests were performed and indicate which bags were replaced (if any) as a result of a tracer dye test.
- (2) maintain these fabric filter maintenance records on site for a minimum of five years and make them available for inspection by the Office upon request.

[Sec. 3D-0613 and 3Q-0308(a)(1)]

3.4 Specific permit conditions for ES-4 (RAP system)

- (a) **Particulates: sand, gravel, crushed stone operations** - Particulate emissions from this emission source (ES-4) shall be controlled as follows:
 - (1) Fugitive non-process dust emissions from the facility shall be controlled to prevent such emissions from causing or contributing to substantive complaints, as required by Sec. 3D-0540. **[Sec. 3D-0540]**

(2) The permittee 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. **[Sec. 3D-0510]**

(3) The permittee shall control process-generated emissions:

- (i) From crushers with wet suppression, and
- (ii) From conveyers, screens, and transfer points,

such that the applicable opacity standards in Sec. 3D -0521 or 3D -0524, are not exceeded. **[Sec. 3D-0510]**

(b) **New Source Performance Standards** - This emission source (ES-4) is subject to NSPS Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) and NSPS Subpart A (General Provisions) **<40 CFR 60.670 - 60.676 and 40 CFR 60.1 - 60.19> [Sec. 3D-0524]**

(c) **NSPS emissions limitations** - As required by Sec. 3D-0524 and 40 CFR 60.672(b), the following permit limits shall not be exceeded:

AFFECTED FACILITY	POLLUTANT	EMISSION LIMIT
Crushers	visible emissions	12% opacity averaged over a six-minute period
Fugitive emissions from conveyor belts and other affected facilities	visible emissions	7% opacity averaged over a six-minute period

(d) **NSPS monitoring** – As required by Sec. 3D-0524 and 40 CFR 60.674(b) the permittee shall perform monthly periodic inspections of all affected facilities controlled by water carryover from upstream water sprays to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator shall initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator shall record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Office upon request. **[Sec. 3D-0524] <40 CFR 60 Subpart A and Subpart OOO>**

- (e) **NSPS performance testing** – Crushers, conveyor belts and any other components of ES-4 that have visible emissions are required to undergo Method 9 testing as specified under 40 CFR 60.675(c)(3) and (e). If testing for the equipment was conducted off-site, records of the testing must be readily available anytime that the equipment is on-site.

[Sec. 3D-0524] <40 CFR 60 Subpart A and Subpart OOO>

NOTE TO PERMITTEE:

LOCAL AIR TOXIC REQUIREMENTS THAT MAY BE RELATED TO THIS EQUIPMENT ARE FOUND IN SECTION 4.

REPORTING/MONITORING REQUIREMENTS SPECIFIC TO THIS EQUIPMENT ARE FOUND IN SECTION 5.

**SECTION 4
LOCAL AIR TOXICS CONDITIONS**

4.1 Toxic air pollutant requirements

- (a) **Air toxics - general** - Specification of a listed toxic air pollutant (TAP) in this permit does not excuse the permittee from complying with the requirements of Sections 3D-1100 and 3Q-0700 of the FCAQTC with regard to any other listed TAP emitted from the regulated facility, nor does this permit exempt the permittee from compliance with any future air toxics regulations promulgated pursuant to the requirements of the Clean Air Act. **[Sections 3D-1100 and 3Q-0700]**
- (b) **De minimis limits** - Total facility-wide emissions of the following pollutants shall not exceed their respective de minimis emissions limits as shown in Sec. 3Q-0711 unless a modeling demonstration is first approved by this Office which shows that the emissions of the subject TAPs from the facility will not adversely affect human health. This demonstration shall be in accordance with the requirements set forth in Sections 3D-1100 and 3Q-0700 of the FCAQTC. This demonstration must be made with an up-to-date version of a U.S. EPA approved computer model or, upon approval by the Office, calculated using the results of a previous modeling analysis showing compliance with the acceptable ambient levels for the pollutants listed below. **[Section 3Q-0700]**

<u>Pollutant (CAS #)</u>	<u>De minimis limit</u>
Acetaldehyde (75-07-0)	6.8 lb/hour
Acrolein (107-02-8)	0.02 lb/hour
Phenol (108-95-2)	0.24 lb/hour
Styrene (100-42-5)	2.7 lb/hour
Methyl chloroform (71-55-6)	64 lb/hour and 250 lb/day
Methyl ethyl ketone (78-93-3)	22.4 lb/hour and 78 lb/day

Toluene (108-88-3)	14.4 lb/hour and 98 lb/day
Xylene (1330-20-7)	16.4 lb/hour and 57 lb/day
Methylene chloride (75-09-2)	0.39 lb/hour and 1600 lb/year
Chromium (VI) (SolCR6)	0.013 lb/day
Hexane (110-54-3)	23 lb/day
Manganese (MNC)	0.63 lb/day
Mercury, vapor (7439-97-6)	0.013 lb/day
Carbon disulfide (75-15-0)	3.9 lb/day
Tetrachlorodibenzo-p-dioxin 2,3,7,8 (1746-01-6)	0.0002 lb/year
Benzo(a)pyrene (50-32-8)	2.2 lb/year
Hydrogen sulfide (7783-06-4)	1.7 lb/day
Cadmium Metal (7440-43-9)	0.37 lb/year
Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8 (5765-38-57)	0.0051 lb/year
Hydrogen chloride (Hydrochloric Acid) (7647-01-0)	0.18 lb/hour
Perchloroethylene (tetrachlorethylene) (127-18-4)	13,000 lb/year

- (c) **Dispersion modeling emission limits** - Combined emissions of the following TAPs from all sources not exempted by Sec. 3Q-0702(a) and (b) at this facility shall not exceed the emission rates listed below. Dispersion modeling using AERMOD Version 24142, performed in March 2025 and approved by this Office, demonstrated that the permitted emissions of the TAPs listed in the table below from this facility impacted the surrounding ambient air at levels below the acceptable ambient levels (AALs) specified in Sec. 3D-1104 of the FCAQTC. The emission rates listed below shall be used as a basis for certifying that any future modifications or changes in the methods of operation will result in ambient impacts below these AALs. In no case shall actual emissions resulting from changes or modifications exceed any of the following emission rates without first applying for and receiving a permit: **[Section 3D-1100]**

<u>Pollutant (CAS #)</u>	<u>Maximum modeled emission rate</u>
Benzene (71-43-2)	1,184.35 lb/yr
Formaldehyde (50-00-0)	1.04 lb/hr
Arsenic unlisted compounds (ASC-other)	140.16 lb/yr
Nickel metal (7440-02-0)	0.49 lb/day

(d) **Toxic air pollutant restrictions**

- (1) To ensure compliance with Sections 3D-1100 and 3Q-0700, the permittee requested and will be required to enforce the following production

limitations:

- (i) 325 tons maximum hourly asphalt production at this facility.
- (ii) 2,500 tons maximum daily asphalt production at this facility.
- (iii) 300,000 tons maximum annual asphalt production at this facility.

[Sec. 3Q-0308(a)(1)]

- (e) **Stack data** - The permittee must obtain approval from this Office prior to the modification of any stack or vent identified in the August 2026 modeling analysis which was used to calculate the TAP emission rates listed in permit condition **4.1(c)**. The permittee must demonstrate that the modification will not cause or contribute to any significant ambient air concentration that may adversely affect human health as required in Section 3D-1100. Examples of what constitutes a modification in this condition include:

- (1) reduction in stack heights,
- (2) change in stack diameter,
- (3) reduction of the average stack exit velocity,
- (4) reduction in stack flow rate,
- (5) addition of stack obstructions (e.g. rain caps),
- (6) redirection or reorientation of stack emissions, or
- (7) reduction in average stack temperatures.

[Sec. 3Q-0308(a)(1)]

- (f) **Toxic air pollutant restrictions** – To demonstrate compliance with the emission limitations in condition **4.1(c)** the Permittee shall comply with the restrictions and associated monitoring and recordkeeping requirements under conditions 3.1 and 3.3.

- (g) **Air toxic pollutant recordkeeping** - The permittee shall maintain updated records of production rates, throughputs, material usage, and other process operational information as is necessary to determine compliance with the emission rates specified in permit **4.1(c)**. At a minimum these records shall include data sufficient to calculate monthly averaged emission rates (in pounds per hour of emission source operation) for TAPs with 1-hour or 24-hour emission limits and yearly emission rates (in pounds per calendar year) for TAPs with annual emission limits.

In addition, the permittee shall maintain fabric filter records in accordance with condition **3.3(c)**.

Copies of these records shall be retained by the permittee for a period of three years after the date on which the record was made.

If requested by an agent of this Office, the permittee shall readily supply copies of these records at the time of inspection. Likewise, the permittee shall submit copies of the records upon request by this Office. **[Sections 3D-0605, 3D-1105, and 3Q-0308(a)(1)]**

NOTE TO PERMITTEE:

REPORTING/MONITORING REQUIREMENTS FOR AIR TOXICS ARE FOUND IN SECTION 5.

**SECTION 5
REPORTING REQUIREMENTS**

5.1 Facility-wide reporting requirements

- (a) **Submittal of reports, data, notifications, applications** - Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to: **[Sec. 3Q-0308(a)(1)]**

Office of Environmental Assistance and Protection
Forsyth County Government Center
201 North Chestnut Street
Winston-Salem, NC 27101-4120

- (b) **Malfunction/Breakdown report** - The owner or operator of a source of excess emissions that lasts for more than four hours and that result from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall notify this Office of any such occurrence by 9:00a.m. Eastern Time of this Office's next business day of becoming aware of the occurrence in accordance with Sec. 3D-0535(f) of the FCAQTC. **[Sec. 3D-0535(f)]**
- (c) **Renewal applications** - The permittee shall file applications for renewal such that they are postmarked at least 90 days before expiration of the permit. **[Sec. 3Q-0304(f)]**

5.2 Reporting requirements specific to ES-1 (hot mix rotary drum mix asphalt plant)

- (a) A semi-annual report showing the monthly amounts (in tons) and monthly rolling 12-month total amounts (in tons) of asphalt produced at this facility shall be submitted to the Office no later than July 30th for the months of January through June, and no later than January 30th for the months of July through December. The reports should include any instances where hourly or daily production limits were exceeded. The recordkeeping requirement associated with this information is stated in permit condition **3.1(a)(2)**. **[Sections 3Q-0315 and 3Q-0308(a)(1)]**
- (b) Within 30 days after each calendar year, regardless of the amount of recycled fuel oil(s) received or combusted, the permittee shall submit in writing to the Department the following:
- (1) A summary of the results of the analytical testing required in permit condition **3.2(c)(1)** for the previous 12 months.

- (2) The total gallons of recycled fuel oil(s) from each approved vendor combusted at the facility for the previous 12 months.

[Sections 3Q-0315 and 3Q-0308(a)(1)]

5.3 Reporting requirements specific to CD1 (fabric filter controlling emissions from ES-1)

- (a) A report showing tracer dye test results within 30 days of the performance of tracer dye test required in permit condition **3.3(b)(5)** or **3.3(b)(6)**. The report shall include:
 - (1) the date the tracer dye test was performed,
 - (2) the date that any bags were replaced,
 - (3) a description of the bag array with an indication of which bags (if any) were replaced,
 - (4) how much tracer compound was used for the test, and
 - (5) how long the fan operated once the tracer compound was introduced into the system.

[Sections 3Q-0315 and 3Q-0308(a)(1)]

**SECTION 6
CONSTRUCTION/MODIFICATION**

6.1 Hot Mix Asphalt Plant Project

Construct/Install new Hot Mix Rotary Drum Mix Asphalt Plant firing natural gas and/or No. 4 fuel oil/recycled fuel oil, with a maximum heat input of 75 million Btu/hr.

Construct/Install two (2) hot mix asphalt silos (200 tons capacity each).

Construct/Install two (2) truck loadouts

Construct/Install a Recycled Asphalt Pavement (RAP) system consisting of a crusher, screen, and conveyor.

- (a) **Construction/Operation authorization** - This permit authorizes the construction/operation of the above listed equipment in accordance with the permit application and attendant information. **[Sec. 3Q-0308(a)]**
- (b) **30-day notification from start-up** - The permittee shall notify this Office of the actual start-up date of the completed project within 30 days after such date. This notification is to enable this Office to plan an inspection to verify compliance with any applicable standards. **[Sec. 3-0103(a)(5) and Sec. 3Q-0308(a)]**

- (c) **Commencement of construction** - If construction/modification of the project is not commenced within 18 months after the effective date of this permit, or construction activities lapse for a period of 18 months after construction has commenced, the permittee shall reapply to this Office and obtain a permit to construct before commencing or resuming construction. **[Sec. 3Q-0308(a)]**
- (d) **Performance testing requirement** - Within 60 days after achieving the maximum production rate at which the facility will be operated, but no later than 180 days after the initial startup of the affected facility, the permittee shall:
- (1) Conduct a performance test for particulate matter emissions from the fabric filter according to U.S. EPA Method 5 (**40 CFR 60 – Appendix A**, amended December 7, 2020, or the most recent, approved version of the Method at the time of testing) and U.S. EPA Reference Method 202 (**40 CFR 51 - Appendix M**, promulgated December 21, 2020, or the most recent, approved version of the Method at the time of testing).
 - (2) As part of the performance testing, visible emissions from the fabric filter shall be determined according to U.S. EPA Method 9 (**40 CFR 60 - Appendix A**, amended August 3, 2017, or the most recent, approved version of the Method at the time of testing).
 - (3) The permittee shall, unless otherwise approved by this Office, submit a test protocol to this Office at least 30 days prior to conducting the performance test and provide a minimum of 10 days' notice of the scheduled date and time of the test to enable an observer to be present.
 - (4) Unless otherwise approved by this Office, the results of the performance test shall be provided in writing to this Office within 30 days of the test.
<40 CFR 60 Subpart A and Subpart III>
[Sections 3D-0524, 3D-0506 and 3Q-0308(a)(1)]
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FORSYTH COUNTY OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION
STATEMENT OF BASIS

Facility: Maymead, Inc. – Clemmons Plant

Premise: 01101

Application Action #: 1496

FACILITY CATEGORY:	New Synthetic Minor (SM)	
	TV?	<u>No</u>
	Synthetic Minor for TV?	<u>Yes</u>
	Synthetic Minor for PSD?	<u>No</u>
	Is this a Small (B) facility?	<u>No</u>

NC AIR TOXICS:	triggered?	<u>Yes</u>
	Already permitted?	<u>No</u>
	Air toxics code:	<u>4C</u>

Introduction

The Forsyth County Office of Environmental Assistance and Protection (this Office) received an air quality permit application on July 16, 2026, from SynTerra Corporation on behalf of their client, Maymead, Inc., for a new hot mix asphalt plant to be constructed in Clemmons, North Carolina, at 2010 Gun Club Road. The application contained a cover letter, the required application forms, and emissions calculations. This Office requested more information from SynTerra/Maymead pertaining to the application on August 5, 2026 and a reply was received from SynTerra on August 12, 2026. Another information request was made by this Office to SynTerra/Maymead on August 12, 2026, and a reply was received from SynTerra on August 14, 2026. The permit application was deemed to be complete as of August 14 on August 17, 2026.

The potential emissions from the proposed plant are above the emissions threshold for the title V operating permit program; however, the application requests a Synthetic Minor classification for the air quality permit to ensure actual emissions remain below the major source threshold. The following production limits were proposed by the facility in the application:

- 325 tons maximum hourly asphalt production
- 2,500 tons maximum daily asphalt production
- 300,000 tons maximum annual asphalt production

This Statement of Basis examines whether these production limits are sufficient for the facility to qualify for a Synthetic Minor air quality permit. In addition, this Statement of Basis evaluates whether the proposed plant can comply with all applicable air quality requirements, and establishes monitoring, recordkeeping and reporting requirements necessary for the facility to demonstrate continuous compliance with the applicable air quality requirements.

Emission Sources

The following emissions sources will be included in the air quality permit:

Emission Source ID No.	Emission Source Description	Control System ID No.	Control System Description	Emission Point ID No.
ES-1	Drum Mixer/Dryer firing natural gas and/or No. 4 fuel oil/recycled fuel oil with a maximum heat input of 75 MMBtu/hr	CD-1	Astec pulse jet baghouse operating at 62,000 CFM and containing 896 14 oz. aramid fiber bags	EP-1
ES-3	Two (2) hot mix asphalt silos (200 tons capacity each)	None	None	Fugitive
ES-3A	Two (2) truck loadout operations	None	None	Fugitive
ES-4	Portable Recycled Asphalt Pavement (RAP) system consisting of a crusher, screen, and conveyor	None	Wet suppression (with crusher)	Fugitive

ES-1

The main source of emissions at the facility, the drum mixer/dryer, will involve aggregate (sized stone) being fed to the drum mixer where it is heated and dried. Reclaimed asphalt pavement (RAP) may also be added to the drum mixer/dryer. Heated liquid asphalt cement is added toward the end of the process to produce hot mix asphalt (HMA). Direct heat is provided for the drum mixer/dryer by a 75 MMBtu/hr burner that fires No. 4 fuel oil, No. 4 recycled fuel oil, or natural gas.

CD-1

The Astec pulse jet baghouse, a type of fabric filter, operates at 62,000 cubic feet per minute (CFM) and contains 896 14 oz. aramid fiber bags, 10,849 square feet of cloth, and air-to-cloth ratio of 5.75 to 1 or interstitial velocity of 5.75 ft/sec. This velocity is reasonable

and consistent with similar applications. The baghouse is required to control filterable PM emissions to limit them to less than 0.04 grains per dry standard cubic foot (gr/dscf) to be verified using EPA method 5 per the Federal New Source Performance Standard.

ES-3/3A

ES-3 and ES-3A are the hot mix asphalt silo filling and truck loading. There are two silos (200 ton capacity each) and two truck loadouts. Only one silo and truck loadout can be operated at a time. The applicant is not proposing controls for the silo loading or the silo unloading/truck loading. Although both silos are equipped with loadout stations, the applicant stated that only one truck can be filled at a time.

ES-4

Reclaimed asphalt pavement (RAP) millings are fed to a crusher and then screened for size before being added to the drum mixer. The RAP crusher is mobile and will be on-site intermittently on as needed basis. The RAP crusher will be on-site less than 30 days at a time and limited to 1200 hours of use per year. The RAP crusher has a max crushing capacity of 120 tons per hour. The facility did not request that the air quality permit allow for the use of recycled asphalt shingles (RAS). The crusher is required to use water sprays to minimize particulate emissions from the crusher and downstream handling operations.

Exempt Sources

The following emission sources are exempt from air quality permitting and will not be included in the permit because their uncontrolled potential emissions of criteria pollutants are below 5 tons per year [Sec. 3Q-0102(h)(5)]:

Emission Source ID No.	Emission Source Description
IES-1	One (1) liquid asphalt cement storage tank (30,000 gallon capacity)
IES-2	One (1) liquid asphalt cement heater firing natural gas and/or No. 4 fuel oil/recycled fuel oil with a maximum heat input of 1 MMBtu/hr
I-AGGR	Aggregate handling system

Relevant Standards

Facility Wide

Good Air Pollution Control Practices - Sections 3D-0501(c) – Permit Condition 2.4

All sources of emissions must be operated and maintained in a manner consistent with the design and emissions handling as applied for in the application. Operation and maintenance records will be verified regularly during inspections.

Odor - Sec. 3D-0522 – Permit Condition 2.5

The facility shall not emit odors beyond their property line that are harmful, irritating or which unreasonably interfere with the use and enjoyment of any person's properties or living conditions, or any public properties or facilities. No violation shall be cited provided that the best practical treatment, maintenance, and control of odor currently available is used. Compliance with this rule is expected based on there being no serious odor issues with other asphalt plants in Forsyth County.

Fugitive Dust Control - Sec. 3D-0540 – Permit Condition 2.6

The facility 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 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 60, Appendix A), the owner or operator may be required to submit and implement a fugitive dust control plan as described in FCAQTC 3D-0540(f). Compliance with this rule is expected based on there being no serious fugitive dust issues with other asphalt plants in Forsyth County.

Control of Visible Emissions - Sec. 3D-0521(d) – Permit Condition 3.1(b)

The facility will be subject to the opacity standards required in 3D-0521(d). Visible emissions shall not be greater than 20% opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20% opacity if:

- (1) No six-minute period exceeds 87% opacity;
- (2) No more than one six-minute period exceeds 20% opacity in any hour; and
- (3) No more than four six-minute periods exceed 20% opacity in any 24-hour period.

Opacity readings will be taken during compliance evaluations to verify that the facility is in compliance with this requirement. Compliance with this rule is expected based on the

fabric filter efficiency and opacity readings conducted at other similar asphalt plants in Forsyth County.

Sulfur Dioxide Allowable Emission Rate - Sec. 3D-0512(d) – Permit Condition 3.1(c)

This rule requires all sources of combustion at the facility to limit sulfur dioxide emissions to 2.3 pounds per million Btu input. The highest AP-42 EF for SO₂ is 0.088 lb/ton of asphalt produced, which is found at Table 11.1-5, and is for the use of waste oil. Provided below is the calculation to determine if the SO₂ standard will be exceeded:

Maximum heat input: 75 MMBtu/hr

Maximum hourly production rate: 325 tons/hr

0.088 lb SO₂/ ton asphalt x 325 ton/hr = 28.6 lb SO₂/hr

28.6 lb SO₂/hr x 1 hr/75 MMBtu heat input of dryer = 0.38 lbs SO₂/ MMBtu

Based upon the calculation above, the SO₂ standard will not be exceeded at the maximum, or lower, production rates.

Synthetic Minor Facilities - Sections 3Q-0315 – Permit Condition 3.1(a)

The facility is requesting to use 3Q-0315 to avoid the applicability of 3Q-0500 (Title V). The requested permit limits will allow the facility to avoid classification as a major source under Title V and qualify for Synthetic Minor classification. The facility classification is discussed further in subsequent sections.

Toxic Air Pollutant Requirements - Sections 3D-1100 – Permit Condition 4.1

Section 4 of the permit lists screening limits for toxic air pollutants that will not exceed Toxic Pollutant Emission Rates (TPERs) after production limitations. There are also dispersion modeling emission limits for the 4 pollutants (Benzene, Formaldehyde, Arsenic, and Nickel) that potentially could exceed TPERs after considering production limitations. These requirements are discussed further in subsequent sections.

ES-1

Particulate emission Standard - Sec. 3D-0506 – Permit Condition 3.2(a)(1)

Section 3D-0506(a) of the Air Quality Technical Code states that the allowable emission rate for total (filterable and condensable) PM shall be 60.0 pounds per hour for process rates equal to or greater than 300 tons per hour. The facility has a maximum hourly production of 325 ton/hr. The emission factor for PM is 0.033 lb/ton; this figure is found in

AP-42, Table 11.1-3 (fabric filter). Provided below is the calculation for determining the emission rate in pounds per hour.

$$0.033 \text{ lb/ton} \times 325 \text{ tons/hr} = 10.725 \text{ lb/hr.}$$

Based upon the above calculation, the facility complies with Sec. 3D-0506(a). The permit will require the facility to conduct a performance test using EPA Method 5 to determine filterable PM emissions and Method 202 to determine condensable emissions.

To ensure ongoing compliance, the facility is required to operate the fabric filter at all times the asphalt plant is operating. The facility proposed the use of a pressure monitor to ensure proper operation. Pressure readings will be required each shift to demonstrate proper operation. The facility is also required to perform periodic maintenance on the fabric filter and maintain records of maintenance performed. In addition, semi-annual tracer dye testing is required to ensure filter bags do not develop holes and this Office may require performance testing to verify compliance if there are compliance concerns.

The requirement for a scavenger dust system in Sec. 3D-0506(c) does not apply to this facility because this is a drum mix plant, not a batch mix plant.

New Source Performance Standards (NSPS) - 40 CFR Part 60, Subpart A and Subpart I; Sec. 3D-0524 – Permit Condition 3.2(b)

The facility is required to verify visible emission standards compliance with Method 9 opacity readings. Compliance with this rule is expected based on the fabric filter efficiency and opacity readings conducted at similar asphalt plants in Forsyth County.

The facility is required to demonstrate compliance with the filterable particulate matter emissions standards with a Method 5 performance test. Filterable particulate matter emissions from the stack outlet shall not exceed 0.04 gr/dscf.

These tests must be performed within 60 days of the facility achieving the maximum production rate at the facility, but no later than 180 days after the initial startup of the facility. The facility must submit a test protocol to this Office at least 30 days prior to conducting the testing and provide a minimum of 10 days' notice of the scheduled date and time of the tests to enable an observer to be present. The facility is required to submit a written report with results of the tests within 30 days of the testing conclusion.

The facility will be required operate and maintain the fabric filter to ensure ongoing compliance using the requirements specified under Sec. 3Q-0506 above.

Fuel Oil – Sec. 3Q-0317 - Permit Condition 3.2(c)

Sec. 3Q-0317 in conjunction with Sec. 3Q-0711 allows the facility to avoid the applicability of Sec. 3D-1100 with respect to the use of recycled #4 fuel oil. The facility is only authorized to use recycled fuel oil that has been approved by the North Carolina Division of Air Quality (NC DAQ) as specified in the NC DAQ, Toxics Protection Branch, *Recycled Oil Management Plan*, March 2009. The recycled fuel oil must be equivalent to unadulterated fossil fuels and meet the criteria given in the permit. There are reporting and recordkeeping requirements pertaining to use of recycled fuel oil in the permit.

ES-4

Particulates from crushed stone operations - Sec. 3D-0510 – Permit Condition 3.4(b) & (c)

Process generated emission of PM from ES-4 shall not exceed ambient air quality standards beyond the property line. The facility must use wet suppression for the crusher.

NSPS - 40 CFR 60 Subpart A and Subpart OOO – Permit Conditions 3.4(c),(d) &(e)

Visible emissions from crushers shall not exceed 12% opacity over a six-minute period. Visible emissions from conveyor belts and other components of ES-4 shall not exceed 7% opacity over a six-minute period. The facility is required to perform monthly inspections of the wet suppression equipment and take corrective action as necessary within 24 hours of finding a problem with water flow. A record of the wet suppression monitoring is required to be kept on-site at the facility.

Crushers, conveyor systems, and other components of ES-4 are required to undergo Method 9 testing as specified under 40 CFR 60.675(c)(3) and (e). If testing for the equipment was conducted off-site, records of the testing must be readily available anytime that the equipment is on-site.

Facility Classification

The facility is requesting a synthetic minor classification. Asphalt plants in Forsyth County, similar to other areas of the state, are typically classified as synthetic minor after taking production limits to avoid Title V permitting requirements. In order to avoid a Title V classification, facilities must have potential emissions of less than 100 tons for criteria pollutants, 25 tons for total hazardous air pollutants (HAPs), and 10 tons for a single HAP. In this case, Maymead's requested annual production limits will ensure that the facility remains well below Title V thresholds. Recordkeeping and reporting requirements will be placed in the permit to assure that the production limits are not being exceeded.

Criteria Pollutants & HAPs

The potential emissions in the table below were calculated using the DEQ Asphalt Emissions Calculator for asphalt plants. The spreadsheet calculates emissions from the drum mixer/dryer (ES-1), silos (ES-3), truck loadout operations (ES-3A), and liquid asphalt cement heater (IES-2). The fuel type used in the potential emissions calculations is No. 4 fuel oil/recycled fuel oil because potential emissions from No. 4 fuel oil/recycled fuel oil combustion are higher or equal to emissions from natural gas combustion. This represents the worst-case (highest possible) emissions from these sources. Particulate Matter (PM) and Volatile Organic Compounds (VOC) also have emissions from other sources that are included in their totals.

Carbon monoxide (CO) is the only pollutant that could potentially be emitted above the Title V threshold without the annual production limit. All pollutants are emitted at levels well below thresholds based on the requested limitations.

The particulate matter (PM) potential emissions were calculated using the DEQ Asphalt Emissions Calculator (encompassing ES-1, ES-3, ES-3A, and IES-2) and a separate spreadsheet that calculated emissions from the aggregate handling system (I-AGGR). Potential emissions from I-AGGR were combined with the potential emissions from ES-1, ES-3, ES-3A and IES-2. The main source of PM at the facility, ES-1, is controlled by a baghouse. PM potential emissions from the overall facility are expected to be below the Title V threshold both before and after limits.

The Volatile Organic Compound (VOC) potential emissions were calculated using the DEQ Asphalt Emissions Calculator (encompassing ES-1, ES-3, ES-3A, and IES-2) and the EPA TANKS 5.3 program. The TANKS program calculates potential emissions from the liquid asphalt cement storage tank (IES-1). Potential emissions from IES-1 were combined with the potential emissions from ES-1, ES-3, ES-3A and IES-2. Facility-wide VOC potential emissions are below the Title V threshold both before and after production limits.

Pollutant	Potential Emissions before limits	Potential Emissions after limits
<i>SO2 (tons/yr)</i>	88.18	11.28
<i>NOx (tons/yr)</i>	78.92	8.88
<i>CO (tons/yr)</i>	188.81	20.04
<i>Total HAP (tons/yr)</i>	14.63	1.54
<i>Largest HAP (formaldehyde) (tons/yr)</i>	4.54	0.48
<i>PM (tons/yr)</i>	97.02	9.46
<i>PM10 (tons/yr)</i>	47.75	5.51
<i>VOC (tons/yr)</i>	68.66	7.41

Air Toxics

Toxic Air Pollutant (TAP) calculations were done using the DEQ Asphalt Emissions Calculator. ES-1, ES-3, and ES-3A are the only significant sources of TAPs at the facility. The emission rates specified in Sec. 3Q-0711 are screening levels presumed to be in compliance with acceptable ambient concentrations provided in Sec. 3D-1104 and referred to as Toxic Pollutant Emission Rates (TPER). Facilities with new sources are required to conduct dispersion modeling if a facility emits more than the TPER. The calculations showed that six pollutants are emitted above TPERs before production limits, but only 4 of those pollutants are emitted above TPERs after production limits (see Table 4 below). All other TAPs were below TPERs both before and after production limits. The TAPs that do not exceed TPERs will be included with their TPER values as emission limits in Permit Condition 4.1(b). The production limits and fabric filter requirements will also be included as TAP restrictions in Permit Condition 4.1(f)

Table 4

	TPER	Potential Emissions before limits	Potential Emissions after limits
Formaldehyde (lb/hr)	0.0400	1.0360	0.3321
Mercury Vapor (lb/day)	0.0130	0.0203	0.0065
Nickel Metal (lb/day)	0.1300	0.4914	0.1575
Arsenic Unlisted Compounds (lb/yr)	0.0530	1.5943	0.1680
Benzene (lb/yr)	8.1000	1127.5896	118.8187
Cadmium Metal (lb/yr)	0.3700	1.1673	0.1230

Air dispersion modeling was submitted for the 4 pollutants that exceeded TPERs after production limits. The modeling found that pollutants would be below their respective

associated acceptable ambient levels (AAL) under worst-case meteorological conditions. The pollutant with modeled emissions closest to the AAL limit was Benzene which was around 50% of the limit. As part of the modeling, maximum facility-wide hourly emission rates were calculated for the 4 pollutants. These rates will be included in Permit Condition 4.1(c). The rates in Permit Condition 4.1(c) are expressed by the correlating averaging period of the TPER. To convert to a daily rate (Nickel), the hourly rate was multiplied by 24. To convert to an annual rate (Arsenic and Benzene), the hourly rate was multiplied by 8,760. More details on air dispersion modeling can be found in the Air Compliance Analysis Summary Sheet in the case file.

Determination

The production limits in the permit will allow the facility to remain below Title V thresholds. It is recommended that the facility be granted a Synthetic Minor designation. To ensure that the production limitations are followed, the facility will be required to record hourly, daily, monthly, and rolling 12-month totals of asphalt production [Permit condition 3.1(a)(2)]. Monthly and rolling 12-month totals of asphalt will be reported to this Office on a semi-annual basis [Permit condition 5.2(b)(1)]. Hourly and daily production data will be verified during compliance evaluations.

Section 6, Construction/Modification, provides authorization to construct the facility in accordance with the application and permit. Construction must be initiated no later than 18 months after the permit is issued. This section also specifies the requirement to conduct the performance test of the asphalt plant and associated fabric filter.

Final Action on Permit Applications Sec. 3Q-0308(a)(1)

The permit will include conditions necessary to carry out the purposes of Chapter 3 of the Forsyth County Code. Such conditions in this permit include:

- Permit condition 3.1(a) – production limitations and recordkeeping requirements

- Permit condition 3.2(a) – particulate emission standards

- Permit condition 3.2(c) – recycled fuel oil specification and recordkeeping requirements

- Permit condition 3.3(a) – fabric filter operation requirements

- Permit condition 3.3(b) – fabric filter maintenance requirements

- Permit condition 3.3(c) – fabric filter recordkeeping requirements

Permit condition 4.1(c) – toxic air pollutant screening requirements

Permit condition 4.1(d) – toxic air pollutant production limitations

Permit condition 4.1(e) – stack modification approval

Permit condition 4.1(f) – toxic air pollutant recordkeeping requirements

Permit condition 5.2(a) – semi-annual production reporting requirement

Permit condition 5.2(b) – annual fuel oil reporting requirement

Permit condition 5.3(c) – tracer dye test reporting requirement

Case Manager: _____ Date: _____

Reviewed by: _____ Date: _____