

REGULATORY REVIEW

This section addresses the applicability of state and federal air quality regulations to the Seekonk Asphalt Corporation facility located at 45 Industrial Court, Seekonk, MA 02771 (the Facility).

1.1 Applicable State Regulations

1.1.1 310 CMR 7.02: Plan Approval and Emission Limitations

The Massachusetts Department of Environmental Protection (MassDEP) regulates air pollutants based on the type of pollutant, the source type, and the source's potential to emit (PTE). An air plan approval is required for sources that have the potential to emit any air contaminant in an amount equal to or greater than one ton per year (tpy). Exemptions from this requirement are contained in 310 Code of Massachusetts Regulations (CMR) 7.02(2). The MassDEP also lists sources which do not require permits if they adhere to the installation and operational requirements listed in 310 CMR 7.03 (*Plan Approval Exemption: Construction Requirements* which includes permit by rule sources) or 310 CMR 7.26 (*Industry Performance Standards*). Sources that do not meet these exemptions are required to file an air plan approval application as stipulated in 310 CMR 7.02. This Non-Major Comprehensive Plan Approval (NMCPA) application is being submitted in accordance with 310 CMR 7.02(5) since the drum dryer is a fuel utilization emission unit that exceeds the maximum energy input capacity for natural gas in 310 CMR 7.02(5)(a)2.

1.1.2 310 CMR 7.02(8): Best Available Control Technology

Per 310 CMR 7.02(8)(a)(2), a Best Available Control Technology (BACT) analysis is required to be completed for all plan approval applications. The BACT analysis for this project is included in a separate document uploaded with this application.

1.1.3 310 CMR 7.05: Fuels All Districts

This regulation limits the sulfur content of liquid fuels. The Facility will satisfy 310 CMR 7.05(1)(a)3 by burning only ultra-low sulfur diesel (ULSD) (15 parts per million sulfur or less) in its hot oil heater.

1.1.4 310 CMR 7.06: Visible Emissions

This regulation contains the following opacity and smoke standards, which apply to the air emission sources being permitted at the Facility.

- ▶ Opacity – not to exceed 20 percent opacity for a period or aggregate period of time in excess of two minutes during any one hour provided that, at no time during the said two minutes shall the opacity exceed 40 percent.
- ▶ Smoke – less than No. 1 of the Chart for a period, or aggregate period of time in excess of six minutes during any one hour, provided that at no time during the said six minutes shall the shade, density, or appearance be equal to or greater than No. 2 of the Chart.¹

¹ Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines.

1.1.5 310 CMR 7.71: Reporting of Greenhouse Gas Emissions

Pursuant to 310 CMR 7.71(3)(a) this regulation applies to Operating Permit facilities and facilities emitting more than 5,000 short tpy of carbon dioxide equivalent (CO₂e). The facility may be subject to this regulation since its potential annual CO₂e emissions are greater than the threshold, however, applicability is based on actual emissions.

1.1.6 310 CMR 7.09: Dust, Odor, Construction, and Demolition

This regulation prohibits emissions which create or contribute to dust or odors that constitute a nuisance. This requirement applies to the Facility during the construction and operation of the proposed air emission sources. The Facility will take necessary measures to control dust and odors from the construction and subsequent operation of the facility. Emissions of VOC are not expected to cause nuisance odors due to the blue smoke abatement systems to be installed.

1.1.7 310 CMR 7.10: Noise

This regulation applies to any person owning, leasing, or controlling a source of sound. The Facility will provide the necessary equipment, service, or maintenance or take necessary precautions so as not to cause, suffer, allow, or permit unnecessary noise both during construction and operation of the Facility. A noise study is included with this application.

1.1.8 310 CMR 7.12: Source Registration

The Facility will be subject to Source Registration since the facility-wide maximum energy input capacity is above the thresholds detailed in 310 CMR 7.12(a)1 and 2.

1.2 Not Applicable State Regulations

1.2.1 310 CMR 7.18 – Reasonably Available Control Technology (RACT) for Volatile and Halogenated Organic Compounds

This regulation applies to various source types that emit volatile organic compounds (VOCs) or halogenated organic compounds (HOCs). The Facility is not subject to any specific source types included in the RACT requirements in 310 CMR 7.18.

In addition, per 310 CMR 7.18(1)(f):

Any person who, since January 1, 1990, obtains a plan approval for an emission unit under 310 CMR 7.02 where said approval establishes BACT or LAER to be no less stringent than RACT for a facility size and type as defined in 310 CMR 7.18 shall comply with the BACT or LAER established in the plan approval, and is not subject to RACT standards of 310 CMR 7.18 as may otherwise be applicable, until the applicable RACT standards of 310 CMR 7.18 become more stringent than the BACT or LAER established in the plan approval, at which point the person shall become subject to the updated RACT standards.

Therefore, the emission units at the Facility will not be subject to 310 CMR 7.18 until such time as a source specific RACT standard is promulgated that is more stringent than the BACT established in the issued NMCPA.

1.2.2 310 CMR 7.24: Organic Material Storage and Distribution

Per 310 CMR 7.24 (1), the Facility storage tanks are not subject to this regulation since the storage tanks are each less than 40,000 gallons.

1.2.3 310 CMR 7.00, Appendix A: Emissions Offset and Nonattainment Review

The Facility is not subject to this regulation as is discussed in more detail in Section 1.3.

1.2.4 310 CMR 7.00, Appendix C: Operating Permit Program

The Facility is not subject to this regulation as it is not a major source for Title V since the PTE for both VOC and nitrogen oxides (NO_x) are less than 50 the PTE for all attainment pollutants is less than 100 tpy, and the PTE for hazardous air pollutants (HAPs) is less than ten tpy for any individual HAP and 25 tpy for total HAPs (per 310 CMR 7.00, Appendix C).

1.3 New Source Review

The federal New Source Review (NSR) program is comprised of two distinct pre-construction permitting programs:

1. Prevention of Significant Deterioration (PSD) for attainment areas/pollutants; and
2. Nonattainment New Source Review (NNSR) for nonattainment areas/pollutants.

For any new stationary sources or modifications to existing stationary sources these permitting programs are required to be evaluated.

The MassDEP is delegated authority to implement the federal PSD program 40 CFR 52.21. According to 40 CFR 52.21(b)(1)(i)(b), the major source threshold for PSD review is 250 tpy for any regulated NSR pollutant.

The MassDEP has its own NNSR permitting program as promulgated in 310 CMR 7.00 Appendix A which establishes the major source threshold at 100 tpy for any regulated NSR pollutant except for ozone precursors, VOC and NO_x, which have a lower threshold of 50 tpy each.

In accordance with 40 CFR 52.21 and 310 CMR 7.00 Appendix A, a determination of whether PSD/NNSR applies to a project is a two-step process. The first step in completing a PSD/NNSR applicability analysis is to determine if the facility is considered an existing major stationary source. The second step, if the facility is an existing major source, requires the determination of whether the proposed change causes a significant emissions increase and a significant net emissions increase, which involves the quantification of the change in emissions resulting from the project itself plus any other contemporaneous changes in emissions that have occurred at the facility.

1.3.1 National Ambient Air Quality Standard (NAAQS) Attainment Status

The Facility is located in Bristol County, Massachusetts which is designated as attainment for the 2008

ozone NAAQS.² The county is designated unclassifiable/attainment for all other criteria pollutants (40 CFR 81.322). The state is also part of a group of states located within the U.S. Environmental Protection Agency (USEPA) defined ozone transport region (OTR). For these reasons, the state is treated as an ozone nonattainment area for regulatory applicability.

1.3.2 NNSR/PSD Major Source Status

The PTE for the proposed Facility does not exceed the 50 tpy NO_x or VOC major source threshold; therefore, it will not be considered major with respect to NNSR. Additionally, the PTE for the proposed Facility does not exceed the 250 tpy threshold for any attainment pollutants and will not be considered major with respect to PSD.

1.3.3 NSR Applicability

As indicated above, the Facility is not a new major stationary source; therefore, it is not subject to the second step of the process that is required for existing major sources. Thus, the Facility is not subject to federal NSR review.

1.4 Applicable New Source Performance Standards

This section summarizes the applicability of New Source Performance Standards (NSPS) regulations codified in 40 CFR Part 60 to the Facility.

1.4.1 40 CFR 60, Subpart A: General Provisions

Subpart A regulates general facility and source requirements related to construction, modification, monitoring, recordkeeping, and performance tests. This subpart applies to any facility that is subject to any other NSPS subpart.

1.4.2 40 CFR 60, Subpart Kb: Volatile Organic Liquid Storage Vessels

The liquid asphalt tanks proposed for the Facility are above the volume threshold of 75 cubic meters (about 19,800 gallons) per 40 CFR 60.110b(a) and, therefore, this NSPS will apply. The Facility will comply with all applicable standards for this NSPS.

1.4.3 40 CFR 60, Subpart I: Standards of Performance for Hot Mix Asphalt Facilities

The USEPA new source performance standard (NSPS) 40 CFR 60 Subpart I applies to all HMA facilities constructed or modified after June 11, 1977. The NSPS identifies emission limits for PM and opacity of 0.04 gr/dscf and 20%, respectively. The proposed facility will comply with these limits.

² Bristol County was designated as a serious nonattainment area for the 1-hour ozone standard and for the 1997 8-hour ozone standard. Both standards have been revoked (June 15, 2005 and April 6, 2015, respectively).

1.5 Not Applicable NSPS

1.5.1 40 CFR 60, Subpart IIII: Stationary Compression Ignition Internal Combustion Engines

This regulation applies to stationary compression ignition (CI) engines ordered after July 11, 2005 and manufactured after April 1, 2006 or modified or reconstructed after July 11, 2005. There will not be any CI engines at the Facility.

1.5.2 40 CFR 60, Subpart JJJJ: Stationary Spark Ignition Internal Combustion Engines

This regulation applies to stationary spark ignition (SI) engines constructed, modified, or reconstructed after June 12, 2006 or manufactured after January 1, 2008, where the date that construction commences is the date the engine is ordered by the owner or operator. There will not be any SI engines at the Facility.

1.5.3 40 CFR 60, Subpart LLLL: Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

Subpart LLLL applies to major HAP sources with specific activities associated with the processing of liquid asphalt. None of these activities are associated with the proposed HMA plant, and the facility will be a minor source of HAP emissions, and therefore this subpart does not apply.

1.5.4 3.5.2. NSPS Subpart OOO, Standards of Performance for Non-Metallic Mineral Processing Plants

NSPS Subpart OOO is subject to non-metallic mineral processing plants that are constructed, modified, or reconstructed after August 31, 1983. A non-metallic mineral processing plant means

Any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, Portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670(b) and (c). [40 CFR 60.671]

The exemption in 40 CFR 60.670(b) is for affected facilities subject to the provisions of Subparts F or I of this part. The Facility is subject to NSPS Subpart I and does not include any crushing or grinding equipment. Therefore, the Facility is exempt from NSPS Subpart OOO.

1.5.5 Non-Applicability of All Other NSPS

NSPS standards are developed for particular industrial source categories and the applicability of a particular NSPS to a facility can be readily ascertained based on the industrial source category covered. All other NSPS standards are categorically not applicable to the proposed Facility.

1.6 National Emission Standards for Hazardous Air Pollutants

This section summarizes the applicability of National Emission Standards for Hazardous Air Pollutants (NESHAP) codified in 40 CFR Parts 61 and 63. The facility does not include any of the specific pollutants and sources for which NESHAPs have been established in 40 CFR Part 61. Therefore, no Part 61 NESHAPs will apply. Under the Part 63 NESHAPs, sources of HAPs are defined as major or area sources. A HAP major

source is defined as having potential emissions equal to or greater than 25 tpy for total HAP and/or potential emissions equal to or greater than 10 tpy for any individual HAP. An area source is a stationary source that is not a major source. The Facility will be an area source of HAP emissions once the plan approval for the facility is issued. The Facility is not subject to any NESHAP regulations.