

State of Rhode Island  
Department of Environmental Management  
Office of Air Resources

Notice of Public Hearing and Comment Period

**Concerning adoption of proposed amendments to Air Pollution Control Regulations Nos. 25, 31 and 33 and proposed new Air Pollution Control Regulation No. 44.**

Notice is hereby given that a public hearing regarding adoption of proposed amendments to Air Pollution Control Regulations Nos. 25, 31 and 33 and proposed new Air Pollution Control Regulation No. 44 will be held in Room 300 of the Department of Environmental Management, at 235 Promenade Street, Providence, Rhode Island on Friday, February 20, 2009 at 10:00 AM, at which time interested parties will be heard.

The proposed revisions to Regulation No. 31, "Control of Volatile Organic Compounds (VOC) from Consumer Products," and No. 33, "Control of VOC from Architectural Coatings and Industrial Maintenance Coatings," and proposed new Regulation No. 44, "Control of VOC from Adhesives and Sealants," would limit the VOC content of 102 categories of consumer products, 53 categories of architectural and industrial maintenance coatings and 40 categories of adhesive and sealant products. VOC is a precursor to the formation of ozone in the ambient air. The proposed revision to Regulation No. 25, "Control of Volatile Organic Compound Emissions from Cutback and Emulsified Asphalt," would prohibit the use of cutback asphalt and limit the VOC content of emulsified asphalt used for road paving, maintenance or repair during the ozone season (April through September).

The proposed amendments and new regulation are based on control measures developed by the Ozone Transport Commission (OTC); these measures have previously been adopted by neighboring states. Based on the OTC analysis of the technical and economic feasibility of these measures, the Office of Air Resources has determined that implementation of these regulatory changes significantly reduce VOC emissions but would not have a significant adverse economic impact on small businesses, cities or towns. Copies of the proposed amended and new regulations and associated fact sheets are available from the Office of Air Resources, 235 Promenade Street, Providence, Rhode Island, between 8:30 am and 4:00 PM and from the Air Resources section of the Department's web site at [www.dem.ri.gov/](http://www.dem.ri.gov/). For more information contact Barbara Morin at (401) 222-4700, ext. 7012, TCDD (401) 222-6800.

Written comments may be sent to the Office of Air Resources at the above address until 4:00 PM on Friday, February 20, 2009, at which time the comment period will end, unless extended by the hearing officer. It is requested that persons who wish to make comments during the public hearing submit a copy of their statement for the record. Members of the Office of Air Resources may question commenters concerning their remarks.

The Department of Environmental Management building is accessible to those with disabilities. Persons with disabilities requiring accommodation should contact the Office of Air Resources at TCDD (401) 222-6800 or (401) 222-2808 at least three business days prior to the hearing.

Signed this 13<sup>th</sup> day of January 2009

Douglas McVay, Acting Chief  
Office of Air Resources

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES

**AIR POLLUTION CONTROL REGULATION NO. 25**

**CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS  
FROM CUTBACK AND EMULSIFIED ASPHALT**



*Effective 19 November 1992*

*Last Amended 19 July 2007*

*Proposed Amendments January 20, 2009*

AUTHORITY: These regulations are authorized pursuant to R.I. Gen. Laws § 42-17.1-2(~~§19~~) and 23-23, as amended, and have been promulgated pursuant to the procedures set forth in the R.I. Administrative Procedures Act, R.I. Gen. Laws Chapter 42-35.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES

AIR POLLUTION CONTROL REGULATION NO. 25

CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS  
FROM CUTBACK AND EMULSIFIED ASPHALT

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RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES  
AIR POLLUTION CONTROL REGULATION NO. 25

**CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS  
FROM CUTBACK AND EMULSIFIED ASPHALT**

**25.1 Definitions**

Unless otherwise expressly defined in this section, the terms used in this regulation shall be defined by reference to the Rhode Island Air Pollution Control General Definitions Regulation. As used in this regulation, the following terms shall, where the context permits, be construed as follows:

25.1.1 **"Asphalt"** means a dark brown to black cementitious material which is solid, semisolid, or liquid in consistence and in which the predominating constituents are bitumens that occur in nature or which are obtained as residue in refining petroleum.

~~25.1.2 **"Chip seal"** or "Aggregate seal" means a single application of liquefied asphalt to an existing paved surface followed by a single layer of aggregate.~~

25.1.32 **"Cutback asphalt"** means asphalt cement that has been liquefied by blending with petroleum solvents or any other (diluent) that contains volatile organic compounds (VOC).

~~25.1.4 **"Dense-graded aggregate"** means a dense aggregate containing sand, stone and fines which has small void spaces, resulting in a compacted mixture.~~

25.1.53 **"Emulsified asphalt"** means an emulsion of asphalt cement and water that contains a small amount of an emulsifying agent; emulsified asphalts are heterogeneous systems containing two normally immiscible phases (asphalt and water) in which the water forms the continuous phase of the emulsion and the minute globules of asphalt form the discontinuous phase.

~~25.1.6 **"Long life stockpile storage"** means the storage of cutback asphalt paving mixtures for 30 days or longer.~~

~~25.1.7 **"Medium curing cutback asphalt"** means a cutback asphalt composed of asphalt cement and a kerosene type diluent of medium volatility, which meets the specifications of the American Society for Testing and Materials (ASTM) Designation D-2027 for Medium Curing Asphalt, or the American Association of State Highway and Transportation Officials (AASHTO) Designation M82.~~

~~25.1.8 **"Open-graded aggregate"** means aggregate containing little or no mineral filler or in which the void spaces in the compacted aggregate are large.~~

~~25.1.9 "Penetrating Prime Coat" means the application of low viscosity liquid asphalt to an absorbent base surface prior to applying an asphalt surface.~~

~~25.1.10 "Seal coat" means a thin liquified asphalt surface treatment used to waterproof and improve the texture of an asphaltwearing surface.~~

25.1.4 "Solicit" means to require for use or to specify, by written or oral contract.

## 25.2 Applicability and Exemptions

25.2.1 Except as specified in subsection 25.2.2, The the provisions of this regulation shall apply to any person, stationary source, facility or municipality who, after July 1, 2009, solicits the use of which manufactures, stores, mixes, uses or applies asphalt for road paving, maintenance or repairs. The provisions of this regulation shall not apply to the manufacture of asphalt products exclusively for use outside of the State of Rhode Island.

25.2.2 The use of cutback asphalt or emulsified asphalt that does not comply with the provisions of section 25.3 shall be allowed provided that prior written approval is granted by the Director. Any request for an approval under this subsection shall be made in writing and shall include, at a minimum, the following information:

- (a) The scope of the activity;
- (b) An assessment of alternative materials and products available;
- (c) The amount of VOC that would be admitted as a result of the activity;
- (d) The dates during which the activity would occur; and
- (e) A demonstration that it is necessary that the activity take place during the period of time between April 1<sup>st</sup> and September 30<sup>th</sup>.

25.2.2 Wherever the term Volatile Organic Compound or VOC is used in Sections 25.2 through 25.6, this term should be read as Volatile Organic Compound and Halogenated Organic Compound or VOC and HOC.

## 25.3 Prohibitions

25.3.1 During the period of April 1<sup>st</sup> through September 30<sup>th</sup> of any calendar year, No no person shall cause, allow or permit the manufacture, mixing, storage, use or apply cutback asphalt. application of cutback asphalt between 1 April and 30 September, except for the manufacture and use of medium curing cutback asphalt in patching mixtures for pavement repairs when long life stockpile storage is necessary and, with written approval of the Director, for the application of a penetrating prime coat.

Medium curing cutback asphalt used for the manufacture of patching mixtures or as a penetrating prime coat shall have less than 5 percent (5%) of the total solvent evaporate at a temperature up to and including 500°F.

~~25.3.2 During the period of April 1<sup>st</sup> through September 30<sup>th</sup> of any calendar year, no person shall use or apply emulsified asphalt unless:~~

- ~~(a) The emulsified asphalt was formulated to contain 0.1% or less VOC by weight, as applied, or~~
- ~~(b) The emulsified asphalt, as applied, produces no greater than 6.0 milliliter of oil distillate by distillation as measured by ASTM Method D 244 or AASHTO Method T 59.~~

~~25.3.2 No person shall cause, allow or permit the manufacture, mixing, storage use or application of cutback asphalt between 1 October and 31 March except in the following circumstances:~~

- ~~(a) The use of medium curing cutback asphalt solely as a penetrating prime coat, or~~
- ~~(b) The use of medium curing cutback asphalt for the manufacture and use of patching mixtures for pavement repairs when long life stockpile storage is necessary, or~~
- ~~(c) The use of medium curing cutback asphalt of which less than 5 percent (5%) of the total solvent evaporates at a temperature up to and including 500°F.~~

~~25.3.3 No person shall cause, allow or permit the manufacture, mixing, storage, use or application of emulsified asphalt which has been diluted with a petroleum solvent or another VOC or which has a VOC content greater than the limits specified in Subsection 25.3.4 between 1 April and 30 September:~~

~~25.3.4 The VOC content of any emulsified asphalt manufactured, mixed, stored, used or applied between 1 October and 31 March shall be limited as follows:~~

<del>Application/Use</del>	<del>Maximum VOC Content Percent (by wt.)</del>
<del>(a) Use as a seal coat</del>	<del>3</del>
<del>(b) Use as a chip seal when dusty or dirty aggregate is used</del>	<del>3</del>
<del>(c) Mixing with open graded aggregate</del>	<del>8</del>

that is not well washed

(d) Mixing with dense graded aggregate 12

## 25.4 Test Methods

~~25.4.1 Compliance with subsections 25.3.1 and 25.3.2(e) shall be demonstrated using ASTM Method D-402, "Distillation of Cut-Back Asphaltic Product" or another method approved by the Director and EPA.~~

~~25.4.2 Compliance with section 25.3.4 shall be demonstrated using ASTM Method D-244, "Standard Test Methods for Emulsified Asphalts", or another method approved by the Director and EPA.~~

## 25.5 Recordkeeping

Any person, ~~stationary source, facility or municipality~~ subject to this regulation shall maintain records of the use of asphalt for road paving, maintenance or repair; asphalt testing data; asphalt formulation data; and any other information that may be necessary to determine compliance with the requirements of this regulation. ~~manufacture, mixing, storage, use of application of any asphalt which contains VOC between 1 April and 30 September.~~ These records shall be maintained in a readily accessible location for a minimum of three years and shall be made accessible to the Office of Air Resources upon request.

## 25.6 Compliance schedule

Compliance with the provisions of this regulation shall be required on and after 1 ~~May~~ July 1994~~2009~~.

## 25.7 General Provisions

### 25.7.1 Purpose

The purpose of this regulation is to limit volatile organic compound emissions from cutback and emulsified asphalt used for road paving, maintenance or repairs during the ozone season (April – September).

### 25.7.2 Authority

These regulations are authorized pursuant to R.I. Gen. Laws § 42-17.1-2(~~s19~~) and 23-23, as amended, and have been promulgated pursuant to the procedures set forth in the R.I. Administrative Procedures Act, R.I. Gen. Laws Chapter 42-35

### 25.7.3 Application

The terms and provisions of this regulation shall be liberally construed to permit the Department to effectuate the purposes of state law, goals and policies.

25.7.4 Severability

If any provision of this regulation or the application thereof to any person or circumstance, is held invalid by a court of competent jurisdiction, the validity of the remainder of the regulation shall not be affected thereby.

25.7.5 Effective Date

The foregoing regulation, "Control of Volatile Organic Compound Emissions from Cutback and Emulsified Asphalt", as amended, after due notice, is hereby adopted and filed with the Secretary of State this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_ to become effective twenty (20) days thereafter, in accordance with the provisions of Chapters 23-23, 42-35, 42-17.1, 42-17.6, of the General Laws of Rhode Island of 1956, as amended.

W. Michael Sullivan, PhD., Director  
Department of Environmental Management

**Notice Given on:**

**Public Hearing held:**

**Filing Date:**

**Effective Date:**

## FACT SHEET

### PROPOSED AIR POLLUTION CONTROL REGULATION NO. 25 “CONTROL OF VOLATILE ORGANIC COMPOUND EMISSIONS FROM CUTBACK AND EMULSIFIED ASPHALT”

#### DISCUSSION

Rhode Island Air Pollution Control Regulation No. 25, “Control of Volatile Organic Compound Emissions from Cutback and Emulsified Asphalt,” was originally adopted by the Rhode Island Department of Environmental Management (RI DEM) in 1994. The original regulation prohibits the manufacture, mixing, storage, use or application of cutback asphalt during the ozone season (April 1<sup>st</sup> through September 30<sup>th</sup>) with certain exceptions and limits the volatile organic compound (VOC) content of emulsified asphalt to 3-12%, depending on the type of application or use. The limits in the original regulation were based on Control Technique Guidelines developed by the US Environmental Protection Agency (EPA) in 1977 and 1979.

In 2001 and 2006, the Ozone Transport Commission (OTC) identified reasonably available control measures for several source categories that, if adopted, would decrease the emissions of ozone precursors, like VOCs, enabling states to reduce ambient ozone levels in their states. The OTC is a multi-state organization created under the Clean Air Act to coordinate efforts to reduce ozone levels in the region from Virginia to Maine. One of the controllable source categories identified by the OTC in 2006 was the application of cutback and emulsified asphalt. The OTC concluded that the EPA CTG was outdated and that more stringent limits on the use of cutback asphalt and on the VOC content of emulsified asphalt would result in significant reductions in VOC emissions from this source category without significant cost increases.<sup>1</sup>

The proposed amendments to Regulation No. 25 are modeled on the OTC recommendations and are equivalent to measures that have been adopted in neighboring states. The amendments would remove the exemptions from the regulation’s prohibition on the use of cutback asphalt during the ozone season and would make the limit on the ozone season VOC content of emulsified asphalt more stringent. The use of emulsified asphalt during the ozone season would be prohibited except for emulsified products that contain 0.1% or less VOC by weight, as applied or produce no greater than 6.0 milliliter of oil distillate, as measured by ASTM Method

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<sup>1</sup> Identification and Evaluation of Candidate Control Measures, Final Technical Support Documents, 28 February 2007, Prepared by MACTEC Federal Programs for the Ozone Transport Commission.  
<http://www.otcair.org/document.asp?fview=Report#>

D 244 or AASHTO Method T 59. These restrictions apply only to road paving, maintenance or repairs. The regulation allows for case by case exemptions to the requirements with written approval from the RI DEM Director.

The regulation, as proposed, would be effective on July 1, 2009. Once finalized, the regulation will be submitted to the EPA as an amendment to Rhode Island's State Implementation Plan (SIP).

#### DEMONSTRATION OF NEED

Rhode Island is a moderate nonattainment area for the 8-hour ozone standard and, as such, was required to submit an attainment demonstration to the EPA showing that the State will be in compliance with that standard by the end of the 2009 ozone season. As required in the Clean Air Act, the attainment demonstration, which was submitted in April 2008, included an analysis of Reasonably Available Control Measures (RACM) to determine whether adoption of any such measures would expedite the date that compliance with the ozone standard was achieved in the State.

RI DEM utilized the OTC control measure analysis for the State RACM analysis. Since the OTC had determined that further control requirements for cutback and emulsified asphalt are reasonably available, RI DEM committed in the attainment demonstration to adopt a rule containing those requirements.

#### ALTERNATIVE APPROACHES CONSIDERED

In order to be consistent with the requirements in neighboring states that utilize the same asphalt suppliers as those used by Rhode Island applicators, RI DEM decided to adopt limitations equivalent to those already in place in Connecticut and under development in Massachusetts and did not consider alternative approaches.

#### IDENTIFICATION OF OVERLAPPED OR DUPLICATED STATE REGULATIONS

Proposed amended Regulation No. 25 does not overlap or duplicate other state regulations.

#### DETERMINATION OF SIGNIFICANT ADVERSE ECONOMIC IMPACT ON SMALL BUSINESS OR ANY CITY OR TOWN

According to the previously cited OTC analysis of the technical and economic feasibility of control measures, the proposed amendments to Regulation No. 25 would not have a significant adverse economic impact on small businesses or cities and towns in the State. After extensive

discussions with stakeholders, the OTC determined that compliant asphalt products are available and that the use of those products would not significantly increase costs.

Copies of the proposed regulation may be obtained at:

RI Department of Environmental Management  
Office of Air Resources  
235 Promenade Street  
Providence, RI 02908

or by contacting the Office of Air Resources at 401-222-2808 (TCDD 401-222-6800). The regulation and this fact sheet are also available in the Program Updates section of RI DEM's web site at [www.state.ri.us/dem/](http://www.state.ri.us/dem/).

Questions about the proposed regulation should be directed to Edward Burns or Barbara Morin at the above address and telephone.