

REGULATION 6.34 Standard of Performance for Existing Pneumatic Rubber Tire Manufacturing Plants

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

Necessity and Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation provides for the control of emissions from existing rubber tire manufacturing facilities.

SECTION 1 Applicability

The provisions of this regulation shall apply to each affected facility commenced before May 20, 1981. Any source that is ever subject to the provisions of this regulation will always be subject to these provisions, unless the source changes its process to one not covered by this regulation.

SECTION 2 Definitions

Terms used in this regulation not defined herein shall have the meaning given to them in Regulation 1.02.

- 2.1 "Affected facility" means undertread cementers, tread end cementers, bead dip tanks, and green tire spray booths associated with the manufacture of pneumatic rubber tires.
- 2.2 "Bead dipping" means the dipping of an assembled tire bead into a solvent based cement.
- 2.3 "Green tire" means an assembled, uncured tire.
- 2.4 "Green tire spraying" means the spraying of a mold release agent and lubricant to the inside and/or the outside of green tires to facilitate the curing process and to prevent rubber from sticking to the mold after the curing process.
- 2.5 "Pneumatic rubber tire manufacture" means the production of pneumatic rubber, passenger type tires on a mass production basis.
- 2.6 "Tread end cementing" means the application of a solvent-based cement to one or both ends of the tread or combined tread-sidewall component.
- 2.7 "Undertread cementing" means the application of a solvent-based cement to a continuous strip of tread or combined tread/sidewall component.
- 2.8 "Water-based sprays" means release compounds, sprayed on the inside and outside of green tires, in which solids, water, and emulsifiers have been substituted for organic solvents.

SECTION 3 Standard for Volatile Organic Compounds

3.1 Undertread Cementing, Tread End Cementing, and Bead Dipping

The owner or operator of an undertread cementing, tread end cementing, or bead dipping operation subject to this regulation shall:

- 3.1.1 Install and operate a capture system, designed to capture, up to 85 percent by weight of VOC emitted, from all undertread cementing, tread end cementing, and bead dipping operations. Maximum reasonable capture shall be consistent with the following documents:

- 3.1.1.1 *Industrial Ventilation, A Manual of Recommended Practices*, 20th edition, American Federation of Industrial Hygienists, and
- 3.1.1.2 *Recommended Industrial Ventilation Guidelines*, U.S. Department of Health, Education and Welfare, National Institute of Occupational Safety and Health, and
- 3.1.2 Install and operate a control device that meets the requirements of one of the following:
 - 3.1.2.1 A carbon adsorber system designed and operated in a manner such that there is at least a 95 percent removal of VOC by weight from the gases ducted to the control device and an overall control efficiency of 62 to 86 percent,
 - 3.1.2.2 An incineration system that oxidizes at least 90 percent of the nonmethane volatile organic compounds which enter the incinerator to carbon dioxide and water and an overall control efficiency of 59 to 81 percent, or
 - 3.1.2.3 A VOC emission reduction system that achieves at least a 90 percent reduction efficiency measured across the control system.
- 3.2 Green Tire Spraying

The owner or operator of a green tire spraying operation subject to this regulation must implement one or the following means of reducing VOC emissions:

 - 3.2.1 Substitute water-based sprays for the normal solvent-based mold release compound, or
 - 3.2.2 Install a capture system designed and operated in a manner that will capture and transfer at least 97 percent of the VOC emitted by the green tire spraying operation to a control device, and
 - 3.2.3 Install and operate a control device that meets the requirements of one of the following:
 - 3.2.3.1 A carbon adsorption system designed and operated in a manner such that there is at least a 95 percent removal of VOC by weight from gases ducted to the control device,
 - 3.2.3.2 An incinerator system that oxidizes at least 90 percent of the nonmethane volatile organic compounds which enter the incinerator to carbon dioxide and water, or
 - 3.2.3.3 A VOC emission reduction system that achieves at least a 90 percent reduction efficiency measured across the control system.

SECTION 4 Compliance

Compliance will be determined based upon an engineering analysis by the District of: the control system design, control device efficiency, control system capture efficiency and any other factors that could influence the performance of the system. If so requested by the District, performance tests as specified by the District shall be conducted in order to determine the efficiency of the control device.

Adopted v1/5-20-81; effective 5-20-81; amended v2/4-21-82, v3/4-20-88, v4/5-15-91.