



Economic Impact Analysis Virginia Department of Planning and Budget

9 VAC 5-10 – Regulations for the Control and Abatement of Air Pollution
Department of Environmental Quality
January 8, 2014

Summary of the Proposed Amendments to Regulation

The State Air Pollution Control Board (Board) proposes to revise the definition of volatile organic compound (VOC) to include *trans* 1-chloro-3,3,3-trifluoroprop-1-ene and 2,3,3,3-tetraafluoropropene on the list of compounds not considered to be VOC.

Result of Analysis

The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact

The general definitions of 9 VAC 5-10 impose no regulatory requirements in and of themselves, but provide support to other Board regulations. The U.S. Environmental Protection Agency has revised the definition of VOC to add two compounds that have been demonstrated to be less reactive to the list of compounds that are not considered to be VOCs: *trans* 1-chloro-3,3,3-trifluoroprop-1-ene (also known as Solstice™ 1233zd(E)) and 2,3,3,3-tetraafluoropropene (also known as HFO-1234yf). Consequently, the Board proposed to update the list of compounds not considered to be VOC.

Trans 1-chloro-3,3,3-trifluoroprop-1-ene may be used in insulation foams as blowing agent in insulating foams for refrigerators/freezers/hot water heaters and 2,3,3,3-tetraafluoropropene may be used as refrigerant in commercial chillers and waste heat recovery systems. The Department of Environmental Quality is not aware of any sources located in Virginia that currently use these substances. There are sources that may someday eventually wish to use them; however, DEQ has not identified any specific sources that plan to do so.

The general public health and welfare may benefit because the revision may encourage the use of these compounds in place of products containing more reactive, and thereby more polluting, substances. Due to their low photochemical reactivity, these compounds are considered to be negligibly reactive in the formation of tropospheric (ground level) ozone and are not expected to contribute to violations of the federal national ambient air quality standards. These compounds are not hazardous air pollutants, and will not deplete stratospheric (upper atmosphere) ozone. Therefore, they do not have a negative effect on human health or the environment.

Excluding these compounds as a VOC will make them easier and less expensive for industry to use. Companies that use these compounds in place of more reactive substances may also benefit by reducing their VOC emissions and concomitant reductions in permitting and other regulatory requirements. Thus, the proposal to add these compounds to the list of substances not considered to be VOC will create a net benefit.

Businesses and Entities Affected

One of these compounds may be used in insulation foams as blowing agent in insulating foams for refrigerators/freezers/hot water heaters and the other may be used as refrigerant in commercial chillers and waste heat recovery systems. Consequently, the proposal to add them to the list of substances not considered to be VOC will potentially affect firms which may start manufacturing products that contain these compounds.

Localities Particularly Affected

The proposal to add two new compounds to the list of substances not considered to be VOC does not have a disproportionate effect on any particular localities.

Projected Impact on Employment

The proposed amendment will not likely have a large impact on employment.

Effects on the Use and Value of Private Property

The proposal to add two new compounds to the list of substances not considered to be VOC will have no immediate impact since currently there are no known firms located in Virginia that currently use these compounds. Adding these compounds to the list of substances not considered to be VOC will make them less costly to use, which may encourage firms to start

using them in production. Thus, the proposed amendment may eventually affect some firms' production methods, lower their costs, and consequently moderately increase firm value.

Small Businesses: Costs and Other Effects

The proposal to add two new compounds to the list of substances not considered to be VOC will have no immediate impact since currently there are no known firms located in Virginia that currently use these compounds. Adding them to the list of substances not considered to be VOC will make them less costly to use. Thus, some small firms may eventually use these compounds to lower costs.

Small Businesses: Alternative Method that Minimizes Adverse Impact

The proposed amendment will not adversely affect small businesses.

Real Estate Development Costs

The proposed amendment will not likely have a large impact on real estate development costs.

Legal Mandate

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.04 of the Administrative Process Act and Executive Order Number 14 (10). Section 2.2-4007.04 requires that such economic impact analyses include, but need not be limited to, a determination of the public benefit, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. Further, if the proposed regulation has an adverse effect on small businesses, Section 2.2-4007.04 requires that such economic impact analyses include (i) an identification and estimate of the number of small businesses subject to the regulation; (ii) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the regulation, including the type of professional skills necessary for preparing required reports and other documents; (iii) a statement of the probable effect of the regulation on affected small businesses; and (iv) a description of any less intrusive or less costly alternative methods of

achieving the purpose of the regulation. The analysis presented above represents DPB's best estimate of these economic impacts.