



Economic Impact Analysis Virginia Department of Planning and Budget

9 VAC 5 - 10 – General Definitions
Department of Environmental Quality
October 24, 2012

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-1,3,3,3-tetrafluoropropene (HFO-1234ze) on the list of substances 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 9VAC5-10 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 a substance that has been demonstrated to be less reactive to the list of substances that are not considered to be VOCs: trans-1,3,3,3-tetrafluoropropene (also known as HFO-1234ze). Consequently, the Board proposed to add HFO-1234ze to the list of substances not considered to be VOC.

HFO-1234ze may be used in a variety of applications including as a refrigerant, an aerosol propellant, and a blowing agent for insulating foam (polyurethanes, polystyrene and other polymers). There are no known sources located in Virginia that currently use this substance. There are sources that may someday eventually wish to use this substance; however, the Department of Environmental Quality 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 HFO-1234ze in place of products containing more reactive and thereby more polluting

substances. Due to its low photochemical reactivity, this compound is considered to be negligibly reactive in the formation of tropospheric (ground level) ozone and is not expected to contribute to violations of the federal national ambient air quality standards. This compound is not a hazardous air pollutant, and will not deplete stratospheric (upper atmosphere) ozone. Therefore, this compound does not have a negative effect on human health or the environment.

Excluding this compound as a VOC will make it easier and less expensive for industry to use. A manufacturer of products containing the compound has stated that in order for this product to be marketed in all parts of the United States, it is essential that it be classified as a non-VOC. Companies that use HFO-1234ze 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 HFO-1234ze to the list of substances not considered to be VOC will create a net benefit.

Businesses and Entities Affected

HFO-1234ze may be used in a variety of applications including as a refrigerant, an aerosol propellant, and a blowing agent for insulating foam (polyurethanes, polystyrene and other polymers). Consequently, the proposal to add HFO-1234ze to the list of substances not considered to be VOC will potentially affect firms which manufacture or use refrigerants, aerosol propellants, or blowing agents.

Localities Particularly Affected

The proposal to add HFO-1234ze 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 HFO-1234ze 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 this compound. Adding HFO-1234ze to the list of substances not considered to be VOC will make it less costly to use, which may encourage firms to start using the compound 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 HFO-1234ze 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 this compound. Adding HFO-1234ze to the list of substances not considered to be VOC will make it less costly to use. Thus, some small firms may eventually use the compound 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, 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 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.