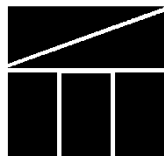


Adverse impact notification sent to Joint Commission on Administrative Rules, House Committee on Appropriations, and Senate Committee on Finance (COV § 2.2-4007.04.C): Yes Not Needed

If/when this economic impact analysis (EIA) is published in the *Virginia Register of Regulations*, notification will be sent to each member of the General Assembly (COV § 2.2-4007.04.B).



Virginia Department of Planning and Budget Economic Impact Analysis

9 VAC 5-10 General Definitions
Department of Environmental Quality
Town Hall Action/Stage: 4732 / 7785
December 15, 2016

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 specifically exclude 1,1,2,2-Tetrafluoro-1-(2,2,2-trifluoroethoxy) ethane, a cleaning agent.

Result of Analysis

The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact

VOCs react with nitrogen oxides on hot summer days to form ozone (smog). Car exhaust, gasoline-powered lawn and garden equipment, gasoline dispensing stations, industrial coating operations, printing shops, paints, household chemicals - are some of the sources of VOC. State VOC regulations have to at least meet a level of stringency the U.S. Environmental Protection Agency calls RACT, or Reasonably Available Control Technology. RACT is defined as the lowest level of emissions that can be achieved taking into account technical and economic considerations.

VOC is defined in the regulation as “any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such

organic compounds which have been determined to have negligible photochemical reactivity other than the following: ...” The regulation then includes a long list of organic compounds that are excluded from those considered to be VOCs.

The U.S. Environmental Protection Agency has revised the definition of VOC to add 1,1,2,2-Tetrafluoro-1-(2,2,2-trifluoroethoxy) ethane (also known as HFE-347pcf2) to the list of substances excluded from the definition of VOC on the basis that this substance makes a negligible contribution to tropospheric ozone formation. Consequently, the Board proposes to add HFE-347pcf2 to the list of substances not considered to be VOC.

Asahi Glass Company, AGC Chemicals America, Inc., manufactures HFE-347pcf2. The company has indicated that HFE- 347pcf2 may be used in a variety of applications as a precision cleaning agent to remove contaminants including oil, flux, and fingerprints from items like medical devices, artificial implants, military and aerospace items, electric components, printed circuit boards, optics, jewelry, ball bearings, aircraft guidance systems, film, relays, and a variety of metal components.

HFE-347pcf2 is not manufactured in Virginia, and there are no facilities in Virginia known to be using this substance. Since there are currently no facilities in the Commonwealth known to be using this substance, no company or other entity would be expected to initially realize any cost savings associated with the removal of this substance as a VOC.

Excluding this compound as a VOC will make it easier and less expensive for industry to use. Companies that choose to use this substance 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 proposed amendment may encourage the use of HFE-347pcf2 in Virginia.

The general public health and welfare would potentially benefit because the proposed revision may encourage the use of HFE-347pcf2 in place of products containing more reactive and thereby more polluting substances. Due to its low photochemical reactivity, this substance is considered to be negligibly reactive in the formation of ground level ozone, and is not considered to be hazardous. Therefore, HFE-347pcf2 does not have a negative effect on human health or the environment. Also the proposed amendment is beneficial in that it would allow the Department

of Environmental Quality to focus VOC reduction strategies on substances that have a negative impact on human health and the environment.

Businesses and Entities Affected

The proposed amendment would affect the manufacturer of HFE-347pcf2, Asahi Glass Company, AGC Chemicals America, Inc., which is not located in Virginia. The proposed amendment would also potentially affect users of precision cleaning agents within the Commonwealth.

Localities Particularly Affected

No localities are particularly affected by the proposed amendment.

Projected Impact on Employment

The proposed amendment is unlikely to directly affect employment in the Commonwealth. The demand for HFE-347pcf2 might increase, but the cleaning agent is not produced in Virginia.

Effects on the Use and Value of Private Property

The proposed amendment may encourage some Virginia firms to switch to using HFE-347pcf2 as a precision cleaning agent.

Real Estate Development Costs

The proposed amendment is unlikely to significantly affect real estate development costs.

Small Businesses:

Definition

Pursuant to § 2.2-4007.04 of the Code of Virginia, small business is defined as “a business entity, including its affiliates, that (i) is independently owned and operated and (ii) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million.”

Costs and Other Effects

The proposed amendment may reduce costs for some small businesses that use precision cleaning agents if they choose to use HFE-347pcf2.

Alternative Method that Minimizes Adverse Impact

The proposed amendment does not adversely affect small businesses.

Adverse Impacts:**Businesses:**

The proposed amendment does not adversely affect businesses.

Localities:

The proposed amendment does not adversely affect localities.

Other Entities:

The proposed amendment does not adversely affect other entities.

Legal Mandates

General: The Department of Planning and Budget has analyzed the economic impact of this proposed regulation in accordance with § 2.2-4007.04 of the Code of Virginia (Code) and Executive Order Number 17 (2014). Code § 2.2-4007.04 requires that such economic impact analyses determine the public benefits and costs of the proposed amendments. Further the report should include but not be limited to: (1) the projected number of businesses or other entities to whom the proposed regulatory action would apply, (2) the identity of any localities and types of businesses or other entities particularly affected, (3) the projected number of persons and employment positions to be affected, (4) the projected costs to affected businesses or entities to implement or comply with the regulation, and (5) the impact on the use and value of private property.

Adverse impacts: Pursuant to Code § 2.2-4007.04(C): In the event this economic impact analysis reveals that the proposed regulation would have an adverse economic impact on businesses or would impose a significant adverse economic impact on a locality, business, or entity particularly affected, the Department of Planning and Budget shall advise the Joint Commission on Administrative Rules, the House Committee on Appropriations, and the Senate Committee on Finance within the 45-day period.

If the proposed regulatory action may have an adverse effect on small businesses, Code § 2.2-4007.04 requires that such economic impact analyses include: (1) an identification and estimate of the number of small businesses subject to the proposed regulation, (2) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the proposed regulation, including the type of professional skills necessary for preparing required reports and other documents, (3) a statement of the probable effect of the proposed regulation on affected small businesses, and (4) a description of any less intrusive or less costly alternative methods of achieving the purpose of the proposed regulation. Additionally, pursuant to Code § 2.2-4007.1, if there is a finding that a proposed regulation may have an adverse impact on small business, the Joint Commission on Administrative Rules shall be notified.

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