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Fast-Track Regulation Agency Background Document

Agency name	State Air Pollution Control Board
Virginia Administrative Code (VAC) Chapter citation(s)	9VAC5-10 (General Definitions)
VAC Chapter title(s)	Regulations for the Control and Abatement of Air Pollution
Action title	Definition of Volatile Organic Compound (Rev. A23)
Date this document prepared	August 31, 2023

This information is required for executive branch review and the Virginia Registrar of Regulations, pursuant to the Virginia Administrative Process Act (APA), Executive Order 19 (2022) (EO 19), any instructions or procedures issued by the Office of Regulatory Management (ORM) or the Department of Planning and Budget (DPB) pursuant to EO 19, the Regulations for Filing and Publishing Agency Regulations (1 VAC 7-10), and the *Form and Style Requirements for the Virginia Register of Regulations and Virginia Administrative Code*.

Brief Summary

Provide a brief summary (preferably no more than 2 or 3 paragraphs) of this regulatory change (i.e., new regulation, amendments to an existing regulation, or repeal of an existing regulation). Alert the reader to all substantive matters. If applicable, generally describe the existing regulation.

The general definitions of 9VAC5-10 impose no regulatory requirements in and of themselves but provide support to other provisions of the Regulations for the Control and Abatement of Air Pollution. The U.S. Environmental Protection Agency (EPA) has revised the definition of volatile organic compound (VOC) to add *trans*-1,1,1,4,4,4-hexafluorobut-2-ene (also known as HFO-1336mzz(E)) 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. The state definition must now be revised accordingly.

Acronyms and Definitions

Define all acronyms used in this form, and any technical terms that are not also defined in the "Definitions" section of the regulation.

EPA – U.S. Environmental Protection Agency
VOC – volatile organic compound

Statement of Final Agency Action

Provide a statement of the final action taken by the agency including: 1) the date the action was taken; 2) the name of the agency taking the action; and 3) the title of the regulation.

On September 13, 2023, the State Air Pollution Control Board:

1. Authorized the department to promulgate the proposal for public comment using the fast-track process established in § 2.2-4012.1 of the Administrative Process Act for regulations expected to be non-controversial. The board's authorization constituted its adoption of the regulation at the end of the public comment period provided that (i) no objection to use of the fast-track process is received from 10 or more persons, or any member of the applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, and (ii) the department does not find it necessary, based on public comments or for any other reason, to make any changes to the proposal.
2. Authorized the department to set an effective date 15 days after close of the 30-day public comment period provided (i) the proposal completes the fast-track rulemaking process as provided in § 2.2-4012.1 of the Administrative Process Act and (ii) the department does not find it necessary to make any changes to the proposal.

Mandate and Impetus

Identify the mandate for this regulatory change and any other impetus that specifically prompted its initiation (e.g., new or modified mandate, petition for rulemaking, periodic review, or board decision). For purposes of executive branch review, "mandate" has the same meaning as defined in the ORM procedures, "a directive from the General Assembly, the federal government, or a court that requires that a regulation be promulgated, amended, or repealed in whole or part."

Consistent with Virginia Code § 2.2-4012.1, also explain why this rulemaking is expected to be noncontroversial and therefore appropriate for the fast-track rulemaking process.

The primary mandate for this regulatory change is § 109 (a) of the federal Clean Air Act, which requires EPA to prescribe national ambient air quality standards to protect public health. Section 110 mandates that each state adopt and submit to EPA a state implementation plan which provides for the implementation, maintenance, and enforcement of the standards. Ozone, one of the pollutants for which there is a federal standard, is in part created by emissions of VOCs. Therefore, in order to control ozone, VOCs must be addressed in Virginia's state plan.

The definition of VOC is being revised to add a less-reactive substance to the list of substances not considered to be VOCs. This amendment is not expected to affect a significant number of sources or have any significant impact, other than a positive one, on air quality overall. Additionally, removal of this substance at the federal level was accompanied by detailed scientific review and public comment. Therefore, no additional information on the reactivity of this substance or the appropriateness of its removal is anticipated.

Legal Basis

Identify (1) the promulgating agency, and (2) the state and/or federal legal authority for the regulatory change, including the most relevant citations to the Code of Virginia and Acts of Assembly chapter number(s), if applicable. Your citation must include a specific provision, if any, authorizing the promulgating agency to regulate this specific subject or program, as well as a reference to the agency's overall regulatory authority.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses the statutory authority to promulgate the proposed regulation amendment is available upon request.

Promulgating Entity

The promulgating entity for this regulation is the State Air Pollution Control Board.

Federal Requirements

Section 109 (a) of the federal Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to prescribe national ambient air quality standards (NAAQS) to protect public health. Section 110 mandates that each state adopt and submit to EPA a state implementation plan (SIP) which provides for the implementation, maintenance, and enforcement of the NAAQS. Ozone, one of the pollutants for which there is a NAAQS, is in part created by emissions of VOCs. Therefore, in order to control ozone, VOCs must be addressed in Virginia's SIP.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of SIPs. Subpart F of Part 51, Procedural Requirements, includes § 51.100, which consists of a list of definitions. 40 CFR 51.100 contains a definition of VOC. This definition is revised by EPA in order to add or remove VOCs as necessary. If it can be demonstrated that a particular VOC is "negligibly reactive"--that is, if it can be shown that a VOC is not as reactive and therefore does not have a significant effect on ground-level (tropospheric) or upper-level (stratospheric) ozone--then EPA may remove that substance from the definition of VOC.

The Chemours Company submitted a petition to EPA on November 30, 2016, requesting that *trans*-1,1,1,4,4,4-hexafluorobut-2-ene (HFO-1336mzz(E)) be exempted from the regulatory definition of VOC. The petition was based on the argument that HFO-1336mzz(E) has low reactivity, and may be used in a variety of applications in foam expansion or blowing agents where it has significant performance and energy-saving advantages. Chemours specifically developed HFO-1336mzz(E) to support reductions in emissions of greenhouse gases.

After thorough scientific review and public comment, EPA took final action on February 8, 2023 (88 FR 8226) to respond to the petition by exempting HFO-1336mzz(E) from the regulatory definition of VOC. This action was based on consideration of the compound's low contribution to tropospheric ozone and the low likelihood of risk to human health or the environment, including stratospheric ozone depletion, toxicity, and climate change. This delisting became effective on April 10, 2023.

State Requirements

This specific amendment is not required by state mandate. Rather, Virginia's Air Pollution Control Law gives the State Air Pollution Control Board the discretionary authority to promulgate regulations "abating, controlling and prohibiting air pollution throughout or in any part of the Commonwealth" (§ 10.1-1308 A). The law defines such air pollution as "the presence in the outdoor atmosphere of one or more substances which are or may be harmful or injurious to human health, welfare or safety, to animal or plant life, or to property, or which unreasonably interfere with the enjoyment by the people or life or property" (§ 10.1-1300).

Purpose

Explain the need for the regulatory change, including a description of: (1) the rationale or justification, (2) the specific reasons the regulatory change is essential to protect the health, safety or welfare of citizens, and (3) the goals of the regulatory change and the problems it is intended to solve.

The purpose of the general definitions chapter is not to impose any regulatory requirements in and of itself, but to provide a basis for and support to other provisions of the Regulations for the Control and Abatement of Air Pollution, which are in place in order to protect public health and welfare. The proposed amendment is being made to ensure that the definition of VOC, which is crucial to most of the regulations, is up-to-date and scientifically accurate, as well as consistent with the overall EPA requirements under which the regulations operate. It may also encourage the use of a less-reactive substance and thereby reduce the production of ground-level ozone.

Substance

Briefly identify and explain the new substantive provisions, the substantive changes to existing sections, or both. A more detailed discussion is provided in the “Detail of Changes” section below.

The general definitions impose no regulatory requirements in and of themselves but provide support to other provisions of the Regulations for the Control and Abatement of Air Pollution. The list of substances not considered to be VOCs in Virginia has been revised to add removed *trans*-1,1,1,4,4,4-hexafluorobut-2-ene (also known as HFO–1336mzz(E)).

Issues

Identify the issues associated with the regulatory change, including: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, include a specific statement to that effect.

1. Public: The general public health and welfare will benefit because the revision may encourage the use of the delisted substance in place of products containing more reactive and thereby more polluting substances. This substance is considered to be negligibly reactive in the formation of ground level (tropospheric) ozone, will not deplete upper level (stratospheric) ozone, and is not considered to be a hazardous (toxic) air pollutant. Therefore, this substance does not have a negative effect on human health or the environment.

Excluding this substance as a VOC will make it easier and less expensive for industry to use it. Companies that 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.

2. Department: The amendment will allow the department to focus VOC reduction strategies on substances that have a negative impact on human health and the environment.

Requirements More Restrictive than Federal

Identify and describe any requirement of the regulatory change which is more restrictive than applicable federal requirements. Include a specific citation for each applicable federal requirement, and a rationale for the need for the more restrictive requirements. If there are no applicable federal requirements, or no requirements that exceed applicable federal requirements, include a specific statement to that effect.

The proposed regulation amendment is not more restrictive than the applicable legal requirements.

Agencies, Localities, and Other Entities Particularly Affected

Consistent with § 2.2-4007.04 of the Code of Virginia, identify any other state agencies, localities, or other entities particularly affected by the regulatory change. Other entities could include local partners such as tribal governments, school boards, community services boards, and similar regional organizations. “Particularly affected” are those that are likely to bear any identified disproportionate material impact which would not be experienced by other agencies, localities, or entities. “Locality” can refer to either local governments or the locations in the Commonwealth where the activities relevant to the regulation or regulatory change are most likely to occur. If no agency, locality, or entity is particularly affected, include a specific statement to that effect.

Other State Agencies Particularly Affected

There is no state agency which will bear any identified disproportionate material air quality impact due to the proposal which would not be experienced by other state agencies.

Localities Particularly Affected

There is no locality which will bear any identified disproportionate material air quality impact due to the proposal which would not be experienced by other localities.

Other Entities Particularly Affected

There is no entity which will bear any identified disproportionate material air quality impact due to the proposal which would not be experienced by other entities.

Economic Impact

Consistent with § 2.2-4007.04 of the Code of Virginia, identify all specific economic impacts (costs and/or benefits), anticipated to result from the regulatory change. When describing a particular economic impact, specify which new requirement or change in requirement creates the anticipated economic impact. Keep in mind that this is the proposed change versus the status quo.

Impact on State Agencies

<p><i>For your agency:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including:</p> <ul style="list-style-type: none"> a) fund source / fund detail; b) delineation of one-time versus on-going expenditures; and c) whether any costs or revenue loss can be absorbed within existing resources 	<p>It is not expected that the regulatory change will result in any cost to the department beyond that currently in the budget. The sources of department funds to carry out this regulation are the general fund and the federal trust (grant money provided by EPA under § 105 of the federal Clean Air Act or permit fees charged to affected entities under the permit program). The activities are budgeted under the following</p>
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	program (code): Environmental and Resource Management (51300); Air Protection Permitting (51325); Air Protection Compliance and Enforcement (51326); Air Protection Planning and Policy (51328). The costs are expected to be ongoing.
<i>For other state agencies:</i> projected costs, savings, fees or revenues resulting from the regulatory change, including a delineation of one-time versus on-going expenditures.	It is not expected that the regulatory change will result in any cost to any state agency.
<i>For all agencies:</i> Benefits the regulatory change is designed to produce.	The amendment will allow the department to focus VOC reduction strategies on substances that have a negative impact on human health and the environment.

Impact on Localities

If this analysis has been reported on the ORM Economic Impact form, indicate the tables (1a or 2) on which it was reported. Information provided on that form need not be repeated here.

Projected costs, savings, fees or revenues resulting from the regulatory change.	No impacts to any locality are anticipated.
Benefits the regulatory change is designed to produce.	<p>The general public health and welfare will likely benefit because the revision may encourage the use of the affected substance 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, will not deplete upper level ozone, and is not considered to be hazardous (toxic). Therefore, this substance does not have a negative effect on human health or the environment.</p> <p>Because the product is used primarily in industrial/manufacturing settings, it is unlikely that a locality would need or want to use the product, although nothing prevents one from doing so should it wish.</p> <p>Greater government efficiency may be realized as the department will be able to better focus VOC reduction strategies on substances that have a negative impact on human health and the environment.</p>

Impact on Other Entities

If this analysis has been reported on the ORM Economic Impact form, indicate the tables (1a, 3, or 4) on which it was reported. Information provided on that form need not be repeated here.

Description of the individuals, businesses, or other entities likely to be affected by the regulatory change. If no other entities will be	Industries manufacturing or using HFO-1336mzz(E) for use in foam blowing, refrigeration, as well as applications in solvents
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<p>affected, include a specific statement to that effect.</p>	<p>and aerosol propellants, and other minor uses, including industrial gas manufacturing, semiconductor machinery manufacturing, all other miscellaneous chemical product and preparation manufacturing, polystyrene foam product manufacturing, urethane and other foam product (except polystyrene) manufacturing, air conditioning and warm air heating equipment and commercial and industrial refrigeration, equipment manufacturing, motor vehicle parts manufacturing, ship building and repairing, boat building, and all other miscellaneous manufacturing. These industries are located throughout the state.</p>
<p>Agency's best estimate of the number of such entities that will be affected. Include an estimate of the number of small businesses affected. Small business means a business entity, including its affiliates, that:</p> <ul style="list-style-type: none"> a) is independently owned and operated and; b) employs fewer than 500 full-time employees or has gross annual sales of less than \$6 million. 	<p>No facilities in Virginia are known at this time to be manufacturing or utilizing this substance; however, there are approximately 45 permitted facilities that meet the above criteria and may potentially use this substance. Nineteen of these facilities are small businesses. Given the broad potential uses for this product, it is reasonable to assume that any manufacturing facility in the state may consider using this product if they are not already. Since the substance was delisted as a VOC at the federal level, it is reasonable to assume that use of this substance may increase among the various categories of manufacturers on a case-by-case basis dictated by various business needs, including the need to perform certain tasks balanced against the potential need to obtain or modify a permit.</p>
<p>All projected costs for affected individuals, businesses, or other entities resulting from the regulatory change. Be specific and include all costs including, but not limited to:</p> <ul style="list-style-type: none"> a) projected reporting, recordkeeping, and other administrative costs required for compliance by small businesses; b) specify any costs related to the development of real estate for commercial or residential purposes that are a consequence of the regulatory change; c) fees; d) purchases of equipment or services; and e) time required to comply with the requirements. 	<p>No specific costs can be identified, as there is no current record of any facilities in Virginia that are using this substance or in what capacity. It is reasonable to assume that a facility may take advantage of the low volatility of this substance to reduce its VOC emissions and thereby be able to expand production without triggering new source review permitting.</p>
<p>Benefits the regulatory change is designed to produce.</p>	<p>Excluding this substance as a VOC will make it easier and less expensive for industry to use it. Companies that 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.</p>

Alternatives to Regulation

Describe any viable alternatives to the regulatory change that were considered, and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the regulatory change. Also, include discussion of less intrusive or less costly alternatives for small businesses, as defined in § 2.2-4007.1 of the Code of Virginia, of achieving the purpose of the regulatory change.

Alternatives to the proposed regulation amendment were considered by the board. The board determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulation. The alternatives considered by the board, along with the reasoning by which the board has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulation to satisfy the provisions of the law and associated regulations and policies. This option was chosen because it meets the stated purpose of the regulation: to protect public health and welfare by encouraging the use of a substance that has less impact on either ground-level or upper-level ozone, does not contribute to global warming, and is not toxic or hazardous.
2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option was not chosen because it would not meet the stated purpose of the regulation.
3. Take no action to amend the regulation and continue to use an outdated definition. This option was not chosen because it would not meet stated purpose of the regulation.

Regulatory Flexibility Analysis

Consistent with § 2.2-4007.1 B of the Code of Virginia, describe the agency’s analysis of alternative regulatory methods, consistent with health, safety, environmental, and economic welfare, that will accomplish the objectives of applicable law while minimizing the adverse impact on small business. Alternative regulatory methods include, at a minimum: 1) establishing less stringent compliance or reporting requirements; 2) establishing less stringent schedules or deadlines for compliance or reporting requirements; 3) consolidation or simplification of compliance or reporting requirements; 4) establishing performance standards for small businesses to replace design or operational standards required in the proposed regulation; and 5) the exemption of small businesses from all or any part of the requirements contained in the regulatory change.

The regulation applies to all facilities, including small businesses. Any (1) establishment of less stringent compliance or reporting standards; (2) establishment of less stringent schedules or deadlines for compliance or reporting requirements; (3) consolidation or simplification of compliance or reporting requirements; (4) establishment of performance standards for small businesses to replace design or operational standards required in the proposed regulation; or (5) exemption of small businesses from all or any part of the requirements contained in the proposed regulation for all small businesses would directly, significantly and adversely affect the benefits that would be achieved through the implementation of the regulation.

Public Participation

Indicate how the public should contact the agency to submit comments on this regulation, and whether a public hearing will be held, by completing the text below.

Consistent with § 2.2-4011 of the Code of Virginia, if an objection to the use of the fast-track process is received within the 30-day public comment period from 10 or more persons, any member of the

applicable standing committee of either house of the General Assembly or of the Joint Commission on Administrative Rules, the agency shall: 1) file notice of the objections with the Registrar of Regulations for publication in the Virginia Register and 2) proceed with the normal promulgation process with the initial publication of the fast-track regulation serving as the Notice of Intended Regulatory Action.

If you are objecting to the use of the fast-track process as the means of promulgating this regulation, please clearly indicate your objection in your comment. Please also indicate the nature of, and reason for, your objection to using this process.

The Board is providing an opportunity for comments on this regulatory proposal, including but not limited to (i) the costs and benefits of the regulatory proposal and any alternative approaches, (ii) the potential impacts of the regulation, and (iii) the agency's regulatory flexibility analysis stated in this background document.

In addition to any other comments, the board is seeking comments on the costs and benefits of the proposal, the impacts on the regulated community, and impacts of the regulation on farm or forest land preservation. Also, the board is seeking information on impacts to small businesses as defined in § 2.2-4007.1 of the Code of Virginia. Information may include (1) projected reporting, recordkeeping and other administrative costs, (2) probable effect of the proposal on affected small businesses, and (3) description of less intrusive or costly alternative methods of achieving the purpose of the proposal.

Anyone wishing to submit written comments for the public comment file may do so through the Public Comment Forums feature of the Virginia Regulatory Town Hall web site at: <https://townhall.virginia.gov>. Comments may also be submitted by mail, email or fax to Karen G. Sabasteanski, Policy Analyst, Air and Renewable Energy Division, Department of Environmental Quality, P.O. Box 1105, Richmond, Virginia, 23218 (email karen.sabasteanski@deq.virginia.gov, fax 804-698-4178. In order to be considered, comments must be received by 11:59 pm on the last day of the public comment period.

Detail of Changes

List all regulatory changes and the consequences of the changes. Explain the new requirements and what they mean rather than merely quoting the text of the regulation. For example, describe the intent of the language and the expected impact. Describe the difference between existing requirement(s) and/or agency practice(s) and what is being proposed in this regulatory change. Use all tables that apply, but delete inapplicable tables.

If an existing VAC Chapter(s) is being amended or repealed, use Table 1 to describe the changes between existing VAC Chapter(s) and the proposed regulation. If existing VAC Chapter(s) or sections are being repealed and replaced, ensure Table 1 clearly shows both the current number and the new number for each repealed section and the replacement section.

Table 1: Changes to Existing VAC Chapter(s)

Current chapter-section number	New chapter-section number, if applicable	Current requirements in VAC	Change, intent, rationale, and likely impact of new requirements
9VAC5-10-20	subdivision jjjj	Definition does not include <i>trans</i> -1,1,1,4,4,4-hexafluorobut-2-ene (HFO-1336mzz(E)).	Revise definition of "volatile organic compound" to add include <i>trans</i> -1,1,1,4,4,4-hexafluorobut-2-ene (HFO-1336mzz(E)) to the list of substances not considered to be VOC. Needed for

			public health and welfare benefit, and consistency with federal requirements.
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