



STATE OF DELAWARE
**DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL**

OFFICE OF THE
SECRETARY

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DOVER, DELAWARE 19901

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Secretary's Order No.: 2016-A-0037

**RE: Approving Final Regulations to Amend 7 DE Admin. Code §1101,
*Definitions and Administrative Principles, Section 2.0: Definitions***

Date of Issuance: October 12, 2016

Effective Date of the Amendment: November 11, 2016

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") pursuant to 7 *Del.C.* §§6006, 6010, the following findings of fact based on the record, reasons and conclusions are entered as an Order of the Secretary in the above-referenced regulatory proceeding.

Background, Procedural History and Findings of Fact

This Order relates to proposed regulation Amendments to 7 DE Admin. Code §1101, *Definitions and Principles, Section 2.0: Definitions*. The Department's Division of Air Quality ("DAQ") commenced the regulatory development process with Start Action Notice 2015-11 dated November 22, 2015. The Department published its initial proposed regulation Amendments in the June 1, 2016 *Delaware Register of Regulations*. The Department then held a public hearing on June 22, 2016. Consistent with 29 *Del.C.* §10118(a), the public hearing record remained open for public comment through July 7, 2016.

Delaware's Good Nature depends on you!

The purpose of this regulatory promulgation is to adopt as final the aforementioned proposed Amendments to 7 DE Admin. Code §1101, *Definitions and Principles*, Section 2.0: *Definitions* (“Amendments”), in order for Delaware to update its definition of volatile organic compounds (“VOC”) as found in 7 DE Admin. Code §1101 to mirror the federal definition of the same, as found at 40 CFR 51.100(s). Specifically, this regulatory action will add the following eight (8) compounds to a list of compounds excluded from Delaware’s existing regulatory definition of VOC, on the basis that the Environmental Protection Agency (“EPA”) has determined that these compounds make a negligible contribution to ground-level ozone formation: HFO-1234ze; HFE-134; HFE-236cal2; HFE-338pcc13; H-Galden1040x; trans1-chloro-3,3,3-trifluoroprop-1-ene; HFO-1234yf; and 2-amino-2-methyl-1-propanol (hereinafter referred to as “the aforementioned eight (8) compounds”). This action will also eliminate recordkeeping, reporting, and modeling requirements associated with the already exempt compound t-butyl acetate (“TBAC”). It should be noted that this regulatory action will reduce the regulatory requirements which apply to existing and new businesses that currently use, or that could switch to using, the aforementioned eight (8) compounds, and will assist Delaware in achieving healthy air quality for its citizens.

The aforementioned proposed Amendments were presented and thoroughly vetted by the Department at the public hearing on June 22, 2016. Members of the public attended that public hearing, however, no comment was received by the Department at that time. It should be noted that written comment was received by the Department prior to this public hearing from Honeywell, Angus Chemical, and the American Coatings Association, and all such comment voiced support of this promulgation. It should also be

noted that all proper notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

Subsequent to the hearing record closing on July 7, 2016, The Department's presiding hearing officer, Lisa A. Vest, then prepared a Hearing Officer's Report dated September 29, 2016 ("Report"). The Report documents the proper completion of the required regulatory development process, establishes the record, and recommends the adoption of the proposed regulatory Amendments as attached to the Report as Appendix "A".

Reasons and Conclusions

Based on the record developed by the Department's experts and established by the Hearing Officer's Report, I find that the proposed regulatory Amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, are well-supported. Therefore, the recommendations of the Hearing Officer are hereby adopted, and I direct that the proposed regulatory Amendments be promulgated as final.

I find that the Department's experts in the Division of Air Quality fully developed the record to support adoption of these regulatory Amendments. The adoption of these regulatory Amendments will allow Delaware to (1) update its definition of volatile organic compounds ("VOC") as found in 7 DE Admin. Code §1101 to mirror the federal definition of the same, as found at 40 CFR 51.100(s), by adding eight (8) additional VOCs that are presently excluded from Delaware's existing definition; (2) eliminate recordkeeping, reporting, and modeling requirements associated with the already exempt compound t-butyl acetate ("TBAC"); (3) reduce the regulatory requirements that apply to existing and new

businesses that currently use, or that could switch to using, the aforementioned eight (8) compounds; and (4) assist Delaware in achieving healthy air quality for its citizens.

In conclusion, the following reasons and conclusions are entered:

1. The Department has the statutory basis and legal authority to act with regard to the proposed Amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, pursuant to 7 *Del.C.*, Ch. 60;

2. The Department has jurisdiction under its statutory authority, pursuant to 7 *Del.C.* Ch. 60, to issue an Order adopting these proposed regulatory amendments as final;

3. The Department provided adequate public notice of the proposed regulatory amendments and all proceedings in a manner required by the law and regulations, provided the public with an adequate opportunity to comment on the proposed regulatory amendments, including at the time of the public hearing held on June 22, 2016, and held the record open through close of business on July 7, 2016, consistent with 29 *Del.C.* §10118(a), in order to consider public comment on these proposed regulatory amendments before making any final decision;

4. The Department's Hearing Officer's Report, including its established record and the recommended proposed regulatory Amendments as set forth in Appendix "A", are hereby adopted to provide additional reasons and findings for this Order;

5. Promulgation of the proposed regulatory amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, will enable the Department to (1) update its definition of volatile organic compounds ("VOC") as found in 7 DE Admin. Code §1101 to mirror the federal definition of the same, as found at 40 CFR 51.100(s), by adding eight (8) additional VOCs that are presently excluded from

Delaware's existing definition; (2) eliminate recordkeeping, reporting, and modeling requirements associated with the already exempt compound t-butyl acetate ("TBAC"); (3) reduce the regulatory requirements that apply to existing and new businesses that currently use, or that could switch to using, the aforementioned eight (8) compounds; and (4) assist Delaware in achieving healthy air quality for its citizens;

6. The Department has reviewed these proposed regulatory Amendments in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104 (version applicable to all regulations initially published on or after January 1, 2016), and has selected Exemption "B1" regarding same, as the same are not substantially likely to impose additional costs or burdens upon individuals and/or small businesses. Moreover, the Department believes these proposed regulatory Amendments to be lawful, feasible and desirable, and that the recommendations as proposed should be applicable to all Delaware citizens equally;

7. The Department's proposed regulatory Amendments, as initially published in the June 1, 2016 *Delaware Register of Regulations*, and as set forth in Appendix "A" as noted above, are adequately supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, they are approved as final regulatory amendments, which shall go into effect ten days after their publication in the next available issue of the *Delaware Register of Regulations*; and

8. The Department shall submit this Order approving as final the proposed Amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, to the *Delaware Register of Regulations* for publication in its

next available issue, and provide such other notice as the law and regulation require and as the Department determines is appropriate.

A handwritten signature in blue ink, appearing to read "D. Small", written over a horizontal line.

David S. Small
Secretary

HEARING OFFICER'S REPORT

TO: The Honorable David S. Small
Cabinet Secretary, Department of Natural Resources and Environmental Control

FROM: Lisa A. Vest 
Public Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: **Proposed Regulation Amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions***

DATE: September 29, 2016

I. BACKGROUND AND PROCEDURAL HISTORY:

A public hearing was held on Wednesday, June 22, 2016, at 6:00 p.m. at the Department of Natural Resources and Environmental Control (“DNREC”, “Department”), 89 Kings Highway, Dover, Delaware to receive comment on proposed regulatory amendments (“Amendments”) to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*. The Department proposes to adopt the aforementioned Amendments in order for Delaware to update its definition of volatile organic compounds (“VOC”) as found in 7 DE Admin. Code §1101 to mirror the federal definition of the same, as found at 40 CFR 51.100(s).

Delaware’s air quality does not meet the federal health-based standard for the pollutant ozone. Ozone is formed by the atmospheric reaction of nitrogen oxides, and VOC in the presence of heat and sunlight. Ozone concentrations are reduced by reducing VOC emissions. This regulatory action will add the following eight (8) compounds to Delaware’s existing regulatory definition of VOC, on the basis that the Environmental Protection Agency (“EPA”) has determined that these compounds make a negligible contribution to ground-level ozone formation: HFO-1234ze; HFE-134; HFE-236cal2; HFE-338pcc13; H-Galden1040x; trans1-chloro-3,3,3-

trifluoroprop-1-ene; HFO-1234yf; and 2-amino-2-methyl-1-propanol (hereinafter referred to as “the aforementioned eight (8) compounds”). This action will also eliminate recordkeeping, reporting, and modeling requirements associated with the already exempt compound t-butyl acetate (“TBAC”). It should be noted that this regulatory action will reduce the regulatory requirements which apply to existing and new businesses that currently use, or that could switch to using, the aforementioned eight (8) compounds, and will assist Delaware in achieving healthy air quality for its citizens.

The Department has the statutory basis and legal authority to act with regard to the proposed amendments to 7 DE Admin. Code §1101, Section 2.0, pursuant to 7 *Del.C.*, Chapter 60. The aforementioned proposed Amendments were presented and thoroughly vetted by the Department at the public hearing on June 22, 2016. Members of the public attended that public hearing, however, no comment was received by the Department at that time. It should be noted that written comment was received by the Department prior to this public hearing from Honeywell, Angus Chemical, and the American Coatings Association, and all such comment voiced support of this promulgation. It should also be noted that all proper notification and noticing requirements concerning this matter were met by the Department. Proper notice of the hearing was provided as required by law.

II. SUMMARY OF THE PUBLIC HEARING RECORD:

The public hearing record consists of the following documents: (1) a verbatim transcript; and (2) fifteen documents introduced by responsible Department staff at the public hearing held on June 22, 2016, and marked by this Hearing Officer accordingly as Department Exhibits 1-15. The Department’s person primarily responsible for the drafting and overall promulgation of these

proposed Amendments, Gene Pettingill, developed the record with the relevant documents in the Department's files.

As noted previously, the aforementioned proposed Amendments to 7 DE Admin. Code §1101, Section 2.0, were presented and thoroughly vetted by the Department at the public hearing on June 22, 2016. Members of the public attended said public hearing, and comment was received by the Department with regard to this proposed regulatory promulgation. Pursuant to Delaware law, the record remained open for fifteen (15) additional days subsequent to the date of the public hearing, for the purpose of receiving additional public comment regarding these proposed Amendments. The hearing record formally closed with regard to public comment on July 7, 2016. It should be noted that written comment was received by the Department prior to this public hearing from Honeywell, Angus Chemical, and the American Coatings Association, and all such comment voiced support of this promulgation. It should also be noted that all proper notification and noticing requirements concerning this proposed promulgation were met by the Department in this matter.

III. RECOMMENDED FINDINGS AND CONCLUSIONS:

Based on the record developed, I find and conclude that the Department has provided appropriate reasoning regarding the need for the proposed Amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definition*, as noted above. Accordingly, I recommend promulgation of these proposed regulatory amendments in the customary manner provided by law.

Further, I recommend the Secretary adopt the following findings and conclusions:

1. The Department has the statutory basis and legal authority to act with regard to the proposed amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, pursuant to 7 *Del.C.*, Ch. 60;

2. The Department has jurisdiction under its statutory authority, pursuant to 7 *Del.C.*, Ch. 60, to issue an Order adopting these proposed regulatory amendments as final;

3. The Department provided adequate public notice of the proposed regulatory amendments and all proceedings in a manner required by the law and regulations, provided the public with an adequate opportunity to comment on the proposed regulatory amendments, including at the time of the public hearing held on June 22, 2016, and held the record open through close of business on July 7, 2016, consistent with 29 *Del.C.* §10118(a), in order to consider public comment on these proposed regulatory amendments before making any final decision;

4. Promulgation of the proposed regulatory amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, will enable the Department to (1) update its definition of volatile organic compounds (“VOC”) as found in 7 DE Admin. Code §1101 to mirror the federal definition of the same, as found at 40 CFR 51.100(s), by adding eight (8) additional VOCs that are presently excluded from Delaware’s existing definition; (2) eliminate recordkeeping, reporting, and modeling requirements associated with the already exempt compound t-butyl acetate (“TBAC”); (3) reduce the regulatory requirements that apply to existing and new businesses that currently use, or that could switch to using, the aforementioned eight (8) compounds; and (4) assist Delaware in achieving healthy air quality for its citizens;

5. The Department has reviewed these proposed regulatory amendments in the light of the Regulatory Flexibility Act, consistent with 29 *Del.C.* Ch. 104 (version applicable to all regulations initially published on or after January 1, 2016), and has selected Exemption “B1” regarding same, as this proposed regulation is not substantially likely to impose additional costs or burdens upon individuals and/or small businesses. Moreover, the Department believes these proposed regulatory Amendments to be lawful, feasible and desirable, and that the recommendations as proposed should be applicable to all Delaware citizens equally;

6. The Department’s proposed regulatory amendments, as initially published in the June 1, 2016 *Delaware Register of Regulations*, and as set forth in Appendix “A” hereto, are adequately supported, are not arbitrary or capricious, and are consistent with the applicable laws and regulations. Consequently, they should be approved as final regulatory amendments, which shall go into effect ten days after their publication in the next available issue of the *Delaware Register of Regulations*; and

7. The Department shall submit the proposed regulatory amendments as final regulatory amendments to 7 DE Admin. Code §1101, *Definitions and Administrative Principles*, Section 2.0: *Definitions*, to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law and regulation require and the Department determines is appropriate.



LISA A. VEST
Public Hearing Officer

\\hear\ Reg. 1101 Sect. 2.0 Amendments.2016

Attachments/Appendix:
Appendix A: Proposed Reg. Amendments

APPENDIX "A"

PROPOSED REGULATIONS

4202 Control of Communicable and Other Disease Conditions (Break in Continuity of Sections)

2.0 Conditions to be Reported, Timeliness and Manner of Reporting (Break in Continuity Within Section)

2.2 Timeliness and Content of Notifiable Disease Reports

(Break in Continuity Within Section)

- 2.2.2 Except as otherwise provided by these regulations, reports of notifiable or other diseases or conditions required to be reported by these regulations shall contain sufficient information to contact the person reporting. When available, the following information shall be reported: the name, address, telephone number, date of birth, race, ethnicity, gender, and disease of the person ill or infected, the date of onset of illness; the name, address, and telephone number of the person's health care provider; and any pertinent laboratory medical information, including but not limited to laboratory information, diagnostic information or other information relevant to the reportable condition.

(Break in Continuity of Sections)

7.0 Control of Specific ~~Contagious~~ Diseases

***Please Note:** As the rest of the sections were not amended, they are not being published. A copy of the regulation is available at:

4202 Control of Communicable and Other Disease Conditions

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR QUALITY

Statutory Authority: 7 Delaware Code, Chapter 60; (7 Del.C., Ch. 60)
7 DE Admin. Code 1101

REGISTER NOTICE SAN# 2015-11

1101 Definitions and Administrative Principles

1. TITLE OF THE REGULATIONS:

Section 2.0 "Definitions" of 7 DE Admin. Code 1101 Definitions and Administrative Principles.

2. BRIEF SYNOPSIS OF THE SUBJECT, SUBSTANCE AND ISSUES:

Update the definition of volatile organic compounds (VOC) in 7 DE Admin. Code 1101 to mirror the federal definition at 40 CFR 51.100(s).

Delaware's air quality does not meet the federal health based standard for the pollutant ozone. Ozone is formed by reaction of nitrogen oxides (NOx) and VOC in the atmosphere, in the presence of heat and sunlight. Ozone concentrations are reduced by reducing NOx and VOC emissions. This action will add the following eight compounds to the list of compounds excluded from Delaware's regulatory definition of VOC on the basis that the Environmental Protection Agency (EPA) has determined that these compounds make a negligible contribution to ground level ozone formation: HFO-1234ze, HFE-134, HFE-236cal2, HFE-338pcc13, H-Galden1040x, trans 1-chloro-3,3,3-trifluoroprop-1-ene, HFO-1234yf, and 2-amino-2-methyl-1-propanol (AMP). Also, the recordkeeping, emission reporting, photochemical dispersion modeling and inventory requirements that were required for the exempt compound t-butyl acetate (TBAC) will be removed as shown in a recent federal action.

3. POSSIBLE TERMS OF THE AGENCY ACTION:

None.

4. STATUTORY BASIS OR LEGAL AUTHORITY TO ACT:

7 Del.C. Ch. 60, Environmental Control.

5. OTHER REGULATIONS THAT MAY BE AFFECTED BY THE PROPOSAL:

None.

6. NOTICE OF PUBLIC COMMENT:

The hearing for this action is scheduled for June 22, 2016 at 6 PM in the DNREC Auditorium in the Richardson & Robbins Building located at 89 Kings Highway in Dover Delaware. Statements or testimony may be presented, orally or in writing, at the public hearing. The hearing record for the proposed revision to the VOC definition in 7 **DE Admin Code** 1101 will be open until July 7, 2016. Interested parties may submit comments in writing to David Fees by email to david.fees@state.de.us or by USPS to: David Fees, Delaware DNREC, Division of Air Quality, State Street Commons, 100 West Water Street, Suite 6A, Dover, DE 19904.

7. PREPARED BY:

David Fees, P.E. phone: (302) 739-9402 fax: (302) 739-3106

***Please Note: The Regulatory Flexibility Analysis and Impact Statement for this regulation, as required by 29 Del.C. Ch. 104, is available at:**

<http://regulations.delaware.gov/register/june2016/proposed/19 DE Reg 1062RFA 06-01-16.pdf>

1101 Definitions and Administrative Principles
(Break in Continuity of Sections)

~~09/11/2009~~ xx/11/2016

2.0 Definitions

(Break in Continuity Within Section)

“Volatile organic compounds” (Also denoted as VOCs) means any carbon-containing compound, 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 compound other than the following, which have been determined to have negligible photochemical reactivity:

- methane;
- ethane;
- methyl chloroform (1,1,1-trichloroethane);
- CFC-113 (1,1,2-trichloro-1,2,2-trifluoromethane);
- methylene chloride (dichloromethane);
- CFC-11 (trichlorofluoromethane);
- CFC-12 (dichlorodifluoromethane);
- HCFC-22 (chlorodifluoromethane);
- HFC-23 (trifluoromethane);
- CFC-114 (1,2-dichloro-1,1,2,2-tetrafluoroethane);
- CFC-115 (chloropentafluoroethane);
- HCFC-123 (1,1,1-trifluoro-2,2-dichloroethane);
- HFC-134a (1,1,1,2-tetrafluoroethane);
- HCFC-141b (1,1-dichloro-1-fluoroethane);
- HCFC-142b (1-chloro-1,1-difluoroethane);
- HCFC-124 (2-chloro-1,1,1,2-tetrafluoroethane);
- HFC-125 (pentafluoroethane);
- HFC-134 (1,1,2,2-tetrafluoroethane);
- HFC-143a (1,1,1-trifluoroethane);
- HFC-152a (1,1-difluoroethane);
- perchlorobenzotrifluoride (PCBTF);

- cyclic, branched, or linear completely methylated siloxanes;
- acetone;
- perchloroethylene (tetrachloroethylene);
- HCFC-225ca (3,3-dichloro-1,1,1,2,2-pentafluoropropane);
- HCFC-225cb (1,3-dichloro-1,1,2,2,3-pentafluoropropane);
- HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-decafluoropentane);
- HFC-32 (difluoromethane);
- HFC-161 (ethylfluoride);
- HFC-236fa (1,1,1,3,3,3-hexafluoropropane);
- HFC-245ca (1,1,2,2,3-pentafluoropropane);
- HFC-245ea (1,1,2,3,3-pentafluoropropane);
- HFC-245eb (1,1,1,2,3-pentafluoropropane);
- HFC-245fa (1,1,1,3,3-pentafluoropropane);
- HFC-236ea (1,1,1,2,3,3-hexafluoropropane);
- HFC-365mfc (1,1,1,3,3-pentafluorobutane);
- HCFC-31 (chlorofluoromethane);
- HCFC-151a (1-chloro-1-fluoroethane);
- HCFC-123a (1,2-dichloro-1,1,2-trifluoroethane);
- 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C₄F₉OCH₃);
- 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CF₂OCH₃);
- 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅);
- 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ((CF₃)₂CF₂OC₂H₅);
- methyl acetate;
- HFE-7000 (1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane) (n-C₃F₇OCH₃);
- HFE-7500 [3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane];
- HFC-227ea (1,1,1,2,3,3,3-heptafluoropropane);
- methyl formate;
- HFE-7300 (1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane);
- ~~t-butyl acetate*~~; ~~t-butyl acetate~~;
- propylene carbonate;
- dimethyl carbonate;
- ~~trans-1,3,3,3-tetrafluoropropene (HFO-1234ze)~~;
- ~~HFE-134 (HCF₂OCF₂H)~~;
- ~~HFE-236ca12 (HCF₂OCF₂OCF₂H)~~;
- ~~HFE-338pcc13 (HCF₂OCF₂CF₂OCF₂H)~~;
- ~~H-Galden 1040X or H-Galden ZT 130 or (150 or 180) (HCF₂OCF₂OCF₂CF₂OCF₂H)~~;
- ~~trans 1-chloro-3,3,3-trifluoroprop-1-ene~~;
- ~~2,3,3,3-tetrafluoropropene~~;
- ~~2-amino-2-methyl-1-propanol~~; and
- perfluorocarbon compounds which fall into these classes:
 - Cyclic, branched, or linear, completely fluorinated alkanes.
 - Cyclic, branched, or linear, completely fluorinated ethers with no unsaturated bonds.
 - Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturated bonds.
 - Sulfur containing perfluorocarbons with no unsaturated bonds and with sulfur bonds only to carbon and fluorine.

* ~~t-butyl acetate is a VOC for purposes of all recordkeeping, emissions reporting, photo-chemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but is not a VOC for purposes of VOC emissions limitations or VOC content requirements.~~

