

ILLINOIS POLLUTION CONTROL BOARD

November 21, 2013

IN THE MATTER OF:)
DEFINITION OF VOM UPDATE, USEPA) R14-7
REGULATIONS (January 1, 2013 through) (Identical-in-Substance Rulemaking - Air)
June 30, 2013 and August 28, 2013))

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by J.A. Burke):

This rulemaking updates the definition of “volatile organic material” (VOM) in the Board’s air pollution regulations (35 Ill. Adm. Code 211.7150). The update is needed to ensure that Illinois’ regulations reflect the United States Environmental Protection Agency’s (USEPA) most recent exemptions of chemical compounds from regulation as ozone precursors. The update includes all USEPA actions in this regard that occurred during the period from January 1, 2013 through June 30, 2013.

This opinion and order is organized into four segments in the following order: (1) an overview of this proceeding that describes the subject matter and regulatory context; (2) segments that review public comments and the record assembled at a public that the Board held in this proceeding; (3) a segment that includes substantive discussion of the federal amendments and resulting Board actions, including tables that outline USEPA amendments that the Board has not followed, deviations from the literal text of the USEPA amendments, corrections and amendments that are not directly derived from USEPA amendments, and revisions since the September 5, 2013 proposal for public comment; and (4) the Board’s order, which includes the text of the adopted amendments.

OVERVIEW OF THIS PROCEEDING

Today the Board adopts amendments that add four compounds to the list of those exempted from the definition of volatile organic material (VOM). The amendments adopted today respond to three USEPA actions that resulted in a single set of USEPA amendments to the federal definition of “volatile organic compound” (VOC) codified at 40 C.F.R. 51.100(s). VOM in the Illinois rules and throughout this opinion and order has the same meaning as does VOC in the federal regulations. *Compare* 35 Ill. Adm. Code 211.7150 *with* 40 C.F.R. 51.100(s) (2013).

The Board reserved this docket to accommodate USEPA amendments to the federal definition of VOM during the period January 1, 2013 through June 30, 2013. USEPA amended 40 C.F.R. 51.100(s) twice during that time, on February 12, 2013 (at 78 Fed. Reg. 9823) and February 15, 2013 (78 Fed. Reg. 11101). USEPA, however, subsequently withdrew the

February 15, 2013 amendments on April 18, 2013 (78 Fed. Reg. 23149) in response to adverse public comment.¹

The USEPA actions during the period from January 1, 2013 through June 30, 2013 are summarized as follows:

February 12, 2013 (78 Fed. Reg. 9823): USEPA exempted four new compounds from the definition of VOM. The four newly exempted compounds are one hydrofluoroether and three hydrofluoropolyethers (HFEs): (difluoromethoxy)(difluoro)methane (CAS 1691-17-4), bis(difluoromethoxy)(difluoro)methane (CAS 78522-47-1), 1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane (CAS 188690-78-0), and 1-(difluoromethoxy)-2-[(difluoromethoxy)(difluoro)methoxy]-1,1,2,2-tetrafluoroethane (CAS 188690-77-9).

February 15, 2013 (78 Fed. Reg. 11101): USEPA exempted one new compound from the definition of VOM. The newly exempted compound was a chlorofluoroalkene: *trans*-1-chloro-3,3,3-trifluoroprop-1-ene (CAS 102687-65-0).

April 18, 2013 (78 Fed. Reg. 23149): USEPA withdrew the February 15, 2013 exemption.

After July 1, 2013, USEPA undertook one action related to actions taken during the January 1, 2013 through June 30, 2013 nominal time-frame of this docket. That action is described as follows:

August 28, 2013 (78 Fed. Reg. 53029): USEPA exempted *trans*-1-chloro-3,3,3-trifluoroprop-1-ene (CAS 102687-65-0) by the usual rulemaking procedure.

The Board amends the Illinois definition of VOM in response to the USEPA actions of February 12, 2013. The Board includes the USEPA action of August 28, 2013 for the sake of expedience and administrative convenience.

No action is needed based on the USEPA actions of February 15, 2013 and April 18, 2013. A brief explanation of the February 15, 2013 and April 18, 2013 actions is included in the discussion of the August 28, 2013 action.

Section 9.1(e) of the Environmental Protection Act (Act) (415 ILCS 5/9.1(e) (2012)) mandates this rulemaking. That statutory provision requires the Board to exclude from the definition of VOM those compounds determined by USEPA to be exempt from regulation under the state implementation plans for ozone “due to negligible photochemical reactivity.” 415 ILCS 5/9.1(e) (2012). In addition, Section 9.1(e) of the Act requires the Board to conduct this rulemaking pursuant to the provisions of Section 7.2(b) of the Act (415 ILCS 5/7.2(b) (2012)) for adopting rules that are “identical in substance” to the federal requirements.

¹ The February 15, 2013 action would have exempted *trans*-1-chloro-3,3,3-trifluoroprop-1-ene (also called Solstice 1233zd(E)) (CAS no. 102687-65-0). See 78 Fed. Reg. 11101, 11104 (Feb. 15, 2013). The effect of the USEPA withdrawal was to put the addition of this compound at the proposed rule stage. See 78 Fed. Reg. 23149 (Apr. 18, 2013); 78 Fed. Reg. 11101, 11102 (Feb. 15, 2013); 78 Fed. Reg. 11119 (Feb. 15, 2013).

Section 9.1(e) also provides that Title VII of the Act and Section 5-35 of the Administrative Procedure Act (APA) (5 ILCS 100/5-35 (2012)) do not apply to this type of rulemaking. Accordingly, the Board did not adopt a “First Notice” proposal, or a “Second Notice” proposal for review by the Joint Committee on Administrative Rules (JCAR). However, as provided in Section 9.1(e) of the Act and explained in the two following segments of this opinion and order, the Board, did provide notice of the rulemaking proposal in the *Illinois Register* before adopting the amendments, held one public hearing on the proposal as required by the federal Clean Air Act (33 U.S.C. § 7410(a) (2012)), and allowed for public comment.

PUBLIC COMMENTS

The Board adopted a proposal for public comment in this proceeding on September 5, 2013. A Notice of Proposed Amendment appeared in the September 20, 2013 issue of the *Illinois Register*, at 37 Ill. Reg. 15289. The Board held a public hearing in this matter on October 31, 2013 and received public comment on the proposal until November 4, 2013 (45 days after the date of *Illinois Register* publication).

Agency personnel attended the public hearing, but did not present testimony or comments. The Board did not receive public comments on the proposed amendment.

The Board also received a document from JCAR that indicates a limited number of revisions that JCAR has suggested for the text. The Board has revised the text in response to some of the JCAR suggestions and has declined to follow others. Table 4 below (beginning on page 11) indicates the suggestions that the Board has followed. Table 5 (beginning on page 12) explains the suggestions that the Board has declined.

PROPOSED SIP REVISION AND FEDERALLY REQUIRED PUBLIC HEARING

The Board expects that the Illinois Environmental Protection Agency (Agency) will submit the present amendments as a revision to the Illinois State Implementation Plan (SIP) for ozone pursuant to section 110 of the federal Clean Air Act (42 U.S.C. § 7410(a) (2012) and the implementing USEPA regulations. *See* 40 C.F.R. 51.102 and appendix V (2013).

As authorized by 415 ILCS 5/9.1(e), the Board held a public hearing on October 31, 2013. This was to allow interested members of the public to comment on the proposed amendments and the anticipated SIP revision that will result from their adoption. The Board simultaneously conducted the hearing via teleconference at Chicago and Springfield, so that persons at both locations may freely participate in the proceedings.

The record in this docket includes all documents pertaining to this proceeding. All documents in the record are publicly available for inspection and copying as provided in 2 Ill. Adm. Code 2175 (2012). The documents are also freely available online at the Board’s webpage: www.ipcb.state.il.us.

The record does not include a copy of the following documents, which are all otherwise publicly available:

- The *Federal Register* notice that prompted this action (referenced elsewhere in this opinion and order);
- Federal statutes and regulations referenced in this opinion and order; and
- Illinois statutes and regulations referenced in this opinion and order.

DISCUSSION

Board Actions Directly Based on Federal Amendments

USEPA Action of February 12, 2013. On February 12, 2013 (at 78 Fed. Reg. 9823), USEPA added four HFE compounds to the list of chemical species that are exempt from the federal definition of VOC and, accordingly, are exempt from regulation for control of ozone precursors. USEPA further made limited corrections to exemptions in the existing text.

The newly exempted compounds are the following:

(difluoromethoxy)(difluoro)methane²

CAS no.: 1691-17-4

chemical formula: CHF₂OCHF₂

alternative common names: HFE-134; 1,1,3,3-tetrafluorodimethyl ether; 1,1,1',1'-tetrafluorodimethyl ether; bis(difluoromethyl)ether; (difluoromethoxy)difluoromethane; di(difluoromethyl) ether; bis(difluoromethyl) ether; 1,1'-oxybis(1,1-difluoromethane); oxybis(difluoromethane); tetrafluorodimethyl ether

bis(difluoromethoxy)(difluoro)methane

CAS no.: 78522-47-1

chemical formula: CHF₂OCF₂OCHF₂

alternative common names: HFE-236cal2; bis(difluoromethoxy)difluoromethane

1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane

CAS no.: 188690-78-0

chemical formula: CHF₂OCF₂CF₂OCHF₂

alternative name: HFE-338pcc13

1-(difluoromethoxy)-2-[(difluoromethoxy)(difluoro)methoxy]-1,1,2,2-tetrafluoroethane

CAS no.: 188690-77-9

chemical formula: CHF₂OCF₂OCF₂CF₂OCHF₂

alternative common names: HFE-43-10pccc; 1-(difluoromethoxy)-2-[(difluoromethoxy)difluoromethoxy]-1,1,2,2-tetrafluoroethane; H-Galden 1040X; H-Galden ZT 130; H-Galden ZT 150; or H-Galden ZT 180

USEPA exempted the four HFE compounds, all of which are sold under the trade name H-Galden, based on a 2005 petition of Solv Solexis, Inc. The compounds can be used as heat transfer agents (secondary-loop refrigerants) and as fire suppressants. In their intended uses, the four compounds would replace ozone-depleting substances. USEPA determined that these

² It appears that “1,1,3,3-tetrafluorodimethyl ether” may be an alternative IUPAC name for this compound.

compounds have photochemical reactivity potentials that are about two orders of magnitude lower than ethane (as factored based on their respective k_{OH} rate constants). USEPA further determined that the four compounds have low acute toxicity, no irritation or skin sensitization, no detectable genotoxic activity, and low potential for developmental toxicity. USEPA observed that they have an ozone depletion potential of zero due to their lack of chlorine and bromine. USEPA observed that each of the four compounds has relatively high 20-year and 100-year global warming potentials (GWPs), but that they have GWPs which are comparable to or lower than compounds they would replace. 78 Fed. Reg. at 9824-26.

In addition to adopting four new exemptions, USEPA corrected the chemical name “(1) 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)” to “1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)” and changed several commas to semicolons in the listing of exempt compounds in 40 C.F.R. 51.100(s)(1). See 78 Fed. Reg. at 9826.

Any person interested in the substance of the exemption of the four HFPE compounds should refer to the February 12, 2015 *Federal Register* discussion that accompanied the USEPA amendments. Alternatively, interested persons could contact USEPA as directed in the *Federal Register* notice.

The Present Board Action. The Board has incorporated the four new exempt HFE compounds without substantive changes. Nevertheless, the Board found minor revisions to the federal text necessary. The primary revisions involve (1) the naming of the new HFE compounds in the list in Section 211.7150; (2) arranging the HFE compounds in alphabetic order in the list; and (3) not implementing USEPA amendments that are not necessary in Section 211.7150. All of these revisions are itemized and summarily outlined in Table 1, which begins on page 9 of this opinion and order, and Table 2, which begins on page 9 **Error! Bookmark not defined.** No further discussion of many of those changes will appear in this opinion and order.

Naming the Newly Exempted Compounds. USEPA codified the four new exemptions using the compounds’ structural formulae and industrial designations. USEPA did not include any of the compounds’ chemical name. The literal text of USEPA’s additions to the listing of exempted compounds in 40 C.F.R. 51.100(s)(1) was as follows (including the ending semicolon):

HCF₂OCF₂H (HFE-134); HCF₂OCF₂OHCF₂ (HFE-236cal2); CHF₂OCF₂CF₂-OCHF₂ (HFE-338pcc13); CHF₂OCF₂OCF₂CF₂OCHF₂ (H-Galden 1040X or H-Galden ZT 130 (or 150 or 180);

See 40 C.F.R. 51.100(s)(1) (2013) (including the February 12, 2013 amendments).

The Board used the CAS numbers given for the four compounds in the *Federal Register* (see 78 Fed. Reg. at 9825, 9826) to search various websites³ for the compounds’ chemical

³ The websites included the following websites: National Institute of Standards and Technology, Material Measurement Laboratory, Standard Reference Data Program, Data Gateway, Chemistry WebBook, Search for Species by CAS Registry Number (webbook.nist.gov/chemistry/cas-ser.html); cas.ChemNet.com (www.chemnet.com/cas/); Chemical Book (www.chemicalbook.com); Royal Society for Chemistry, Cambridge

names. The Board consulted Table A-1 to subpart A of 40 C.F.R. 98 to obtain the name “HFE-338pcc13” for the compound that USEPA called “CHF₂OCF₂OCF₂CF₂OCHF₂ (H-Galden 1040X or H-Galden ZT 130 (or 150 or 180))” by its condensed chemical formula. In this way, the Board identified IUPAC⁴ names for all of the compounds and common names for three of them.

The Board codified each of the four new exemptions by its IUPAC name. The Board retained the structural formula and the coded common name given by USEPA, with some minor revisions.⁵ Principally, the Board revised each condensed structural formula so the hydrogen atoms indicated are placed immediately after the carbon atoms to which they are attached. This is the more conventional format for each moiety of chain compounds. The Board added the coded common name “HFE-338pcc13” for 1,2-bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane. The Board did not add the several common names found and listed above for three of the HFE compounds.

The entries that the Board has made in Section 211.7150 for each compound are summarized as follows:

USEPA Designation in 40 C.F.R. 51.100	Board Designation in Section 211.7150
HCF ₂ OCF ₂ H (HFE-134)	(difluoromethoxy)(difluoro)methane (CHF ₂ OCHF ₂ or HFE-134)
HCF ₂ OCF ₂ OCF ₂ H (HFE-236cal2)	bis(difluoromethoxy)(difluoro)methane (CHF ₂ OCF ₂ OCHF ₂ or HFE-236cal2)
HCF ₂ OCF ₂ CF ₂ OCF ₂ H (HFE-338pcc13)	1-(difluoromethoxy)-2-[(difluoromethoxy) (difluoro)methoxy]-1,1,2,2-tetrafluoro ethane (CHF ₂ OCF ₂ OCF ₂ CF ₂ OCHF ₂ or HFE-43- 10pccc)
HCF ₂ OCF ₂ OCF ₂ CF ₂ OCF ₂ H (H-Galden 1040x or H-Galden ZT 130 (or 150 or 180))	1,2-bis(difluoromethoxy)-1,1,2,2-tetra fluoroethane (CHF ₂ OCF ₂ CF ₂ OCHF ₂ or HFE- 338pcc13)

Request for Public Comments: The Board requested comments on the incorporation of the four new February 12, 2013 USEPA exemptions from the definition of VOM. In particular, the Board requested comments on the chemical names added for each of the four compounds. The Board received no comments in response.

(RSC), ChemSpider (www.chemspider.com); and Advanced Chemistry Development, Inc., IUPAC Nomenclature of Organic Chemistry (www.acdlabs.com/iupac/nomenclature/).

⁴ The International Union of Pure and Applied Chemistry.

⁵ These revisions are itemized in Table 2, which begins on page 10 of this opinion and order.

USEPA Action of August 28, 2013. USEPA adopted a direct final rule⁶ on February 15, 2013 (at 78 Fed. Reg. 11101) that added one hydrochlorofluorocarbon (HCFC) compound to the list of compounds exempt from the definition of VOM. That compound was the following:

trans-1-chloro-3,3,3-trifluoroprop-1-ene

CAS no.: 102687-65-0

chemical formula: CF_3CHCHCl

alternative names: (*1E*)-1-chloro-3,3,3-trifluoroprop-1-ene; *trans*-1-chloro-3,3,3-trifluoropropylene; Solstice 1233zd(E)

USEPA withdrew the rule on April 18, 2013 (at 78 Fed. Reg. 23149) in response to a significant adverse public comment. *See* 78 Fed. Reg. at 23149; 78 Fed. Reg. 11119 (Feb. 15, 2013). On August 28, 2013 (at 78 Fed. Reg. 53029), USEPA adopted the exemption after consideration of the comments submitted.

USEPA exempted *trans*-1-chloro-3,3,3-trifluoroprop-1-ene, which is sold under the trade name Solstice 1233zd(E), based on a 2011 petition of Honeywell Inc. The compound can be used as an aerosol and non-aerosol solvent; as a blowing agent for insulating foam for refrigerators, freezers, and hot water heaters; and as a refrigerant in commercial chillers and waste heat recovery systems. USEPA determined that the hydroxyl radical reactivity rate (k_{OH}) for Solstice is higher than the k_{OH} of the benchmark compound, ethane. USEPA determined, however, that the maximum incremental reactivity (MIR) is equivalent to ethane on a molar basis and is about two orders of magnitude lower than the MIR of ethane on a mass basis. In its intended uses, the compound would replace ozone-depleting substances that have both higher and lower k_{OH} and MIR values. USEPA further observed that Solstice 1233zd(E) has a very low global warming potential (GWP). USEPA further determined that Solstice 1233zd(E) has similar human health effects as the products for which it will substitute. The most significant include severe eye irritation, skin irritation, and frostbite. USEPA stated that precautions common among use of similar products would limit workplace exposures and address potential health risks. *See* 78 Fed. Reg. 53029, 53030-31 (Aug. 28, 2013); 78 Fed. Reg. 11101, 11106 (Feb. 15, 2013).

Any person interested in the substance of the exemption of Solstice 1233zd(E) should refer to the February 15, 2015 and August 28, 2013 *Federal Register* discussions that accompanied the USEPA amendments. Alternatively, interested persons could contact USEPA as directed in the *Federal Register* notice.

⁶ A direct final rule is an action taken without prior publication of a notice of proposed amendments in the *Federal Register*. Instead, USEPA delays the effective date of the direct final rule and expressly states in the *Federal Register* notice that (1) the rule will become effective on a future date, without further action by USEPA, unless USEPA expressly withdraws the rule by a *Federal Register* notice that is published before that date; and (2) USEPA will withdraw the rule if it receives significant adverse comment before a stated date that is about 45 days after the date of the *Federal Register* notice adopting the direct final rule. *See, e.g.*, 78 Fed. Reg. 11101 (Feb. 15, 2013) (particularly, the “Dates” segment). Simultaneous with the notice of direct final rule, USEPA published a notice of proposed rule in the *Federal Register*. *See, e.g.*, 78 Fed. Reg. 11119 (Feb. 15, 2013). Upon receipt of significant adverse comment, USEPA will withdraw the direct final rule, leaving open the option of adoption by a future *Federal Register* notice of final rule. *See, e.g.*, 78 Fed. Reg. 23149 (Apr. 18, 2013).

The Present Board Action. The Board has incorporated the new exempt HCFC compound without substantive changes. Nevertheless, the Board found minor revisions to the federal text necessary. The primary revisions involve (1) the naming of the new HCFC compound in the list in Section 211.7150; and (2) arranging the compound in alphabetic order in the list. As to naming, the Board observes that USEPA omitted the hyphen that should follow the structural prefix “*trans*.” The chemical name should have appeared as “*trans*-1-chloro-3,3,3-trifluoroprop-1-ene.” The Board made this correction. These revisions are itemized and summarily outlined in Table 2, which begins on page 9. **Error! Bookmark not defined.** No further discussion relative to alphabetization will appear in this opinion and order.

Deviations from the Literal Text of the Federal Amendments and Non-Federally Derived Corrections and Clarifications

The Board routinely examines federal amendments and the base text of rules open for amendments to find any areas that need correction or clarification. JCAR and the Office of the Secretary of State also routinely examine the text and suggest corrections and clarifications. Sometimes suggestions arise from the Illinois Environmental Protection Agency, USEPA, or members of the regulated community. The Board often makes revisions as a result.

The revisions thus made are not directly derived from federal amendments. The Board is ever mindful of the limited discretion authorized in the context of an identical-in-substance proceeding. The Board is limited to “those changes that are necessary for compliance with the Illinois Administrative Code,” “technical changes that in no way change the scope or meaning of any portion of the regulations,” and “apparent typographical and grammatical errors.” See 415 ILCS 5/7.2(a) and (a)(7) (2012). Thus, the Board will only make minor, non-substantive corrections and clarifications in this context. These corrections are non-substantive in effect.

Tables follow that document the corrections and clarifications made in this proceeding. The first lists the deviation from the literal text of the USEPA amendments involved in this proceeding. The second lists the correction made in this docket that was not prompted by federal amendments.

Tabulations of Deviations from the Literal Text of the Federal Amendments and Miscellaneous Board Housekeeping Amendments

The tables below list numerous corrections and amendments that are not based on current federal amendments. Table 1 lists a number of federal amendments that the Board has not included in this docket. Table 1 gives a brief explanation why the Board has declined to make each. Table 2 includes deviations made in this proposal for public comment from the verbatim text of the federal amendments. Table 3 contains corrections and clarifications that the Board made in the base text involved in this proposal. The amendments listed in Table 3 are not directly derived from the current federal amendments. Some of the entries in these tables are discussed further in appropriate segments of the general discussion beginning at page 4 of this opinion. Table 4 is a listing of revisions made to the text of the amendments from that proposed and set forth in the Board’s opinion and order of September 5, 2013. Table 4 indicates the changes made, as well as the source that suggested each of the changes. Table 5 indicates

suggested revisions that the Board has not made in adopting these amendments. Each entry gives a brief explanation why the Board did not incorporate the suggested change.

**Table 1:
Federal Amendments That Are
Not Necessary in This Docket**

Provision Citations 40 C.F.R./ 35 Ill. Adm. Code	USEPA Amendment/ Explanation Why Not Made in This Docket
50.100(s)(1)/ 211.7150	Change the commas after “methyl acrylate,” “1,1,1,2,2,3,3-heptafluoro-3-methoxypropane (n-C ₃ F ₇ OCH ₃ , HFE-7000),” “3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500),” 1,1,1,2,3,3,3- heptafluoropropane (HFC 227ea),” and “methyl formate (HCOOCH ₃)” to semicolons./ The structure of the corresponding Illinois provision, which lists each exempt compound on a separate line, does not require the use of punctuation to separate entries.
50.100(s)(1)/ 211.7150	Add a hard hyphen to change “1,1,1,2,2,3,3-heptafluoro-3-methoxypropane” to “1,1,1,2,2,3,3-heptafluoro-3-methoxypropane.”/ The soft hyphen is appropriate, as the hyphen is not necessary unless the methoxy moiety appears at the end of a line and a line break is necessary or desirable.

**Table 2:
Deviations from the Text of the Federal Amendments**

Illinois Section	40 C.F.R. Section	Revision(s)
211.2170, “bis(difluoro methoxy)(difluoro) methane”	50.100(s)(1), “HCF ₂ OCF ₂ OCF ₂ H”	Added the chemical name “bis(difluoro methoxy)(difluoro)methane”; changed “HCF ₂ OCF ₂ OHCF ₂ ” to “CHF ₂ OCF ₂ -OCHF ₂ ” and moved it into the parentheses; added the conjunction “or”; moved the listing into alphabetic order.
211.2170, “1,2-bis (difluoromethoxy)-1,1,2,2-tetrafluoro ethane”	50.100(s)(1), “HCF ₂ OCF ₂ CF ₂ OCF ₂ H”	Added the chemical name “1,2-bis (difluoromethoxy)-1,1,2,2-tetrafluoro ethane”; changed “CHF ₂ OCF ₂ CF ₂ -OCHF ₂ ” to “CHF ₂ OCF ₂ OCHF ₂ ” and moved it into the parentheses; added the conjunction “or”; moved the listing into alphabetic order.

211.2170, “trans-1-chloro-3,3,3-trifluoroprop-1-ene”	50.100(s)(1), “ <i>trans</i> 1-chloro-3,3,3-trifluoroprop-1-ene”	Corrected the spelling “ <i>trans</i> 1-chloro-3,3,3-trifluoroprop-1-ene” to “trans-1-chloro-3,3,3-trifluoroprop-1-ene”; moved the listing into alphabetic order.
211.2170, “(difluoromethoxy)(difluoromethane)”	50.100(s)(1), “HCF ₂ OCF ₂ H”	Added the chemical name “(difluoromethoxy)(difluoromethane)”; changed “HCF ₂ OCF ₂ OCF ₂ H” to “CHF ₂ OCHF ₂ ” and moved it into the parentheses; added the conjunction “or”; moved the listing into alphabetic order.
211.2170, “1-(difluoromethoxy)-2-[(difluoromethoxy)(difluoromethoxy)]-1,1,2,2-tetrafluoroethane”	50.100(s)(1), “HCF ₂ OCF ₂ OCF ₂ CF ₂ O-CF ₂ H”	Added the chemical name “1-(difluoromethoxy)-2-[(difluoromethoxy)(difluoromethoxy)]-1,1,2,2-tetrafluoroethane”; changed “HCF ₂ OCF ₂ OCF ₂ OCF ₂ OCF ₂ H” to “CHF ₂ OCF ₂ OCF ₂ CF ₂ OCHF ₂ ” and moved it into the parentheses; added the conjunction “or”; moved the listing into alphabetic order.

Table 3:
Board Housekeeping Amendments

Section	Source	Revision(s)
211.7150(a), “2-chloro-1,1,1,2-tetrafluoroethane”	Board	Moved the entry into correct alphabetic order.
211.7150(a), 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	Board	Corrected “(CF₃)₂CF₂CF₂OCH₃” to “(<u>CF₃)₂CF₂CF₂OCH₃.”</u>
211.7150(a), “3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane”	Board	Moved the entry into correct alphabetic order.
211.7150(a), “ethylfluoride”	Board	Moved the entry into correct alphabetic order.

211.7150(a), “2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane”	Board	Corrected the condensed structural formula “((CF ₃) ₂ CF ₂ OC ₂ H ₅)” to “((CF ₃) ₂ CF ₂ OC ₂ H ₅).”
211.7150(a), “1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane”	Board	Corrected the condensed structural formula “C ₄ F ₉ OC ₂ H ₅ ” to “C ₄ F ₉ OC ₂ H ₅ .”
211.7150(a), “methyl formate”	Board	Corrected the condensed structural formula “HCOOCH ₃ ” to “CHOOCH ₃ .”
211.7150(a), “1,1,1,2,2,3,3,4,4-Nonafluoro-4-methoxybutane”	Board	Corrected the condensed structural formula “C ₄ F ₉ OCH ₃ ” to “C ₄ F ₉ OCH ₃ .”
211.7150(b)	JCAR	Changed capitalized “Appendix A” to lower-case “appendix A”; changed capitalized “Subpart I” to lower-case “subpart I”; changed capitalized “Appendix S” to lower-case “appendix S.”

Table 4:
Revisions to the Text of the Proposed Amendments in Final Adoption

Section	Source	Revision(s)
211.7150(a), 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane	Board	Corrected “(CF ₃) ₂ CF ₂ OCH ₃ ” to “(CF ₃) ₂ CF ₂ OCH ₃ .”
211.7150(b)	JCAR	Changed capitalized “Appendix A” to lower-case “appendix A”; changed capitalized “Subpart I” to lower-case “subpart I”; changed capitalized “Appendix S” to lower-case “appendix S.”

Table 5:
Requested Revisions to the Text of the Proposed Amendments Not Made in
Final Adoption

Section Affected	Source of Request: Requested Revision	Explanation
211.7150, 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane	JCAR: Omit the overstruck "C4F9OC2H5" and the underlining from "C4F9OC2H5."	The correction from "C4F9OC2H5" to "C4F9OC2H5" requires the format proposed by the Board.
211.7150, 1,1,1,2,2,3,3-heptafluoro-3-methoxypropane	JCAR: Omit the overstruck "n-C3F7OCH3" and the underlining from "n-C3F7OCH3."	The correction from "n-C3F7OCH3" to "n-C3F7OCH3" requires the format proposed by the Board.
211.7150, methyl formate	JCAR: Change the formula "CHOOCH3" overstruck for deletion to "CHOOCH3."	The existing text that is deleted has the formula without subscript: "CHOOCH3."
211.7150, 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxybutane	JCAR: Omit the overstruck "C4F9OCH3" and the underlining from "C4F9OCH3."	The correction from "C4F9OCH3" to "C4F9OCH3" requires the format proposed by the Board.

HISTORICAL SUMMARY OF THE FEDERAL RECOMMENDED
POLICY ON THE CONTROL OF VOLATILE ORGANIC COMPOUNDS
AND ITS IMPLEMENTATION IN ILLINOIS

The Board traditionally included historical summaries of the State and federal definitions of VOM in each opinion and order. That summary traces the evolution of the federal *Recommended Policy on the Control of Volatile Organic Compounds*; USEPA's codification of the policy as a definition in 40 C.F.R. 51.100(s); subsequent amendments of 40 C.F.R. 51.100(s); the several dockets that the Board has reserved to accommodate federal amendments, including indication of the several amendments to the definition of VOM that the Board has made based on USEPA's actions.

In a break from past tradition, the Board no longer includes the lengthy summaries in opinions and orders relating to the definition of VOM. The Board maintains an updated version of the historical summaries on the Board's website: www.ipcb.state.il.us. Persons wishing to review the historical summaries of the federal and State exemptions from the definitions of VOM must consult the Board's website or Board staff to do so.

ORDER

The Board directs the Clerk to promptly file the adopted amendments with the Office of the Secretary of State and provide notice in the *Illinois Register* of the following adopted amendments to the definition of VOM at 35 Ill. Adm. Code 211.7150:

TITLE 35: ENVIRONMENTAL PROTECTION
 SUBTITLE B: AIR POLLUTION
 CHAPTER I: POLLUTION CONTROL BOARD
 SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR
 STATIONARY SOURCES

PART 211
 DEFINITIONS AND GENERAL PROVISIONS

SUBPART A: GENERAL PROVISIONS

Section	
211.101	Incorporated and Referenced Materials
211.102	Abbreviations and Conversion Factors

SUBPART B: DEFINITIONS

Section	
211.121	Other Definitions
211.122	Definitions (Repealed)
211.130	Accelacota
211.150	Accumulator
211.170	Acid Gases
211.200	Acrylonitrile Butadiene Styrene (ABS) Welding
211.210	Actual Heat Input
211.230	Adhesive
211.233	Adhesion Primer
211.235	Adhesive Primer
211.240	Adhesion Promoter
211.250	Aeration
211.260	Aerosol Adhesive and Adhesive Primer
211.270	Aerosol Can Filling Line
211.290	Afterburner
211.310	Air Contaminant
211.330	Air Dried Coatings
211.350	Air Oxidation Process
211.370	Air Pollutant
211.390	Air Pollution
211.410	Air Pollution Control Equipment
211.430	Air Suspension Coater/Dryer
211.450	Airless Spray
211.470	Air Assisted Airless Spray
211.474	Alcohol

211.479	Allowance
211.481	Ammunition Sealant
211.484	Animal
211.485	Animal Pathological Waste
211.490	Annual Grain Through-Put
211.492	Antifoulant Coating
211.493	Antifouling Sealer/Tie Coat
211.495	Anti-Glare/Safety Coating
211.510	Application Area
211.530	Architectural Coating
211.540	Architectural Structure
211.550	As Applied
211.560	As-Applied Fountain Solution
211.570	Asphalt
211.590	Asphalt Prime Coat
211.610	Automobile
211.630	Automobile or Light-Duty Truck Assembly Source or Automobile or Light-Duty Truck Manufacturing Plant
211.650	Automobile or Light-Duty Truck Refinishing
211.660	Automotive/Transportation Plastic Parts
211.665	Auxiliary Boiler
211.670	Baked Coatings
211.680	Bakery Oven
211.685	Basecoat/Clearcoat System
211.690	Batch Loading
211.695	Batch Operation
211.696	Batch Process Train
211.710	Bead-Dipping
211.715	Bedliner
211.730	Binders
211.735	Black Coating
211.740	Brakehorsepower (rated-bhp)
211.750	British Thermal Unit
211.770	Brush or Wipe Coating
211.790	Bulk Gasoline Plant
211.810	Bulk Gasoline Terminal
211.820	Business Machine Plastic Parts
211.825	Camouflage Coating
211.830	Can
211.850	Can Coating
211.870	Can Coating Line
211.880	Cap Sealant
211.890	Capture
211.910	Capture Device
211.930	Capture Efficiency
211.950	Capture System

211.953	Carbon Adsorber
211.954	Cavity Wax
211.955	Cement
211.960	Cement Kiln
211.965	Ceramic Tile Installation Adhesive
211.970	Certified Investigation
211.980	Chemical Manufacturing Process Unit
211.990	Choke Loading
211.995	Circulating Fluidized Bed Combustor
211.1000	Class II Finish
211.1010	Clean Air Act
211.1050	Cleaning and Separating Operation
211.1070	Cleaning Materials
211.1090	Clear Coating
211.1110	Clear Topcoat
211.1120	Clinker
211.1128	Closed Molding
211.1130	Closed Purge System
211.1150	Closed Vent System
211.1170	Coal Refuse
211.1190	Coating
211.1210	Coating Applicator
211.1230	Coating Line
211.1250	Coating Plant
211.1270	Coil Coating
211.1290	Coil Coating Line
211.1310	Cold Cleaning
211.1312	Combined Cycle System
211.1315	Combustion Tuning
211.1316	Combustion Turbine
211.1320	Commence Commercial Operation
211.1324	Commence Operation
211.1328	Common Stack
211.1330	Complete Combustion
211.1350	Component
211.1370	Concrete Curing Compounds
211.1390	Concentrated Nitric Acid Manufacturing Process
211.1410	Condensate
211.1430	Condensable PM-10
211.1435	Container Glass
211.1455	Contact Adhesive
211.1465	Continuous Automatic Stoking
211.1467	Continuous Coater
211.1470	Continuous Process
211.1490	Control Device
211.1510	Control Device Efficiency

211.1515	Control Period
211.1520	Conventional Air Spray
211.1530	Conventional Soybean Crushing Source
211.1550	Conveyorized Degreasing
211.1560	Cove Base
211.1565	Cove Base Installation Adhesive
211.1570	Crude Oil
211.1590	Crude Oil Gathering
211.1610	Crushing
211.1630	Custody Transfer
211.1650	Cutback Asphalt
211.1655	Cyanoacrylate Adhesive
211.1670	Daily-Weighted Average VOM Content
211.1690	Day
211.1700	Deadener
211.1710	Degreaser
211.1730	Delivery Vessel
211.1740	Diesel Engine
211.1745	Digital Printing
211.1750	Dip Coating
211.1770	Distillate Fuel Oil
211.1780	Distillation Unit
211.1790	Drum
211.1810	Dry Cleaning Operation or Dry Cleaning Facility
211.1830	Dump-Pit Area
211.1850	Effective Grate Area
211.1870	Effluent Water Separator
211.1872	Ejection Cartridge Sealant
211.1875	Elastomeric Materials
211.1876	Electric Dissipating Coating
211.1877	Electric-Insulating Varnish
211.1878	Electrical Apparatus Component
211.1880	Electrical Switchgear Compartment Coating
211.1882	Electrodeposition Primer (EDP)
211.1883	Electromagnetic Interference/Radio Frequency Interference (EMI/RFI) Shielding Coatings
211.1885	Electronic Component
211.1890	Electrostatic Bell or Disc Spray
211.1900	Electrostatic Prep Coat
211.1910	Electrostatic Spray
211.1920	Emergency or Standby Unit
211.1930	Emission Rate
211.1950	Emission Unit
211.1970	Enamel
211.1990	Enclose
211.2010	End Sealing Compound Coat

211.2030	Enhanced Under-the-Cup Fill
211.2040	Etching Filler
211.2050	Ethanol Blend Gasoline
211.2055	Ethylene Propylenediene Monomer (DPDM) Roof Membrane
211.2070	Excess Air
211.2080	Excess Emissions
211.2090	Excessive Release
211.2110	Existing Grain-Drying Operation (Repealed)
211.2130	Existing Grain-Handling Operation (Repealed)
211.2150	Exterior Base Coat
211.2170	Exterior End Coat
211.2190	External Floating Roof
211.2200	Extreme High-Gloss Coating
211.2210	Extreme Performance Coating
211.2230	Fabric Coating
211.2250	Fabric Coating Line
211.2270	Federally Enforceable Limitations and Conditions
211.2285	Feed Mill
211.2290	Fermentation Time
211.2300	Fill
211.2310	Final Repair Coat
211.2320	Finish Primer Surfacer
211.2330	Firebox
211.2350	Fixed-Roof Tank
211.2355	Flare
211.2357	Flat Glass
211.2358	Flat Wood Paneling
211.2359	Flat Wood Paneling Coating Line
211.2360	Flexible Coating
211.2365	Flexible Operation Unit
211.2368	Flexible Packaging
211.2369	Flexible Vinyl
211.2370	Flexographic Printing
211.2390	Flexographic Printing Line
211.2410	Floating Roof
211.2415	Fog Coat
211.2420	Fossil Fuel
211.2425	Fossil Fuel-Fired
211.2430	Fountain Solution
211.2450	Freeboard Height
211.2470	Fuel Combustion Emission Unit or Fuel Combustion Emission Source
211.2490	Fugitive Particulate Matter
211.2510	Full Operating Flowrate
211.2525	Gasket/Gasket Sealing Material
211.2530	Gas Service
211.2550	Gas/Gas Method

211.2570	Gasoline
211.2590	Gasoline Dispensing Operation or Gasoline Dispensing Facility
211.2610	Gel Coat
211.2615	General Work Surface
211.2620	Generator
211.2622	Glass Bonding Primer
211.2625	Glass Melting Furnace
211.2630	Gloss Reducers
211.2650	Grain
211.2670	Grain-Drying Operation
211.2690	Grain-Handling and Conditioning Operation
211.2710	Grain-Handling Operation
211.2730	Green-Tire Spraying
211.2750	Green Tires
211.2770	Gross Heating Value
211.2790	Gross Vehicle Weight Rating
211.2800	Hardwood Plywood
211.2810	Heated Airless Spray
211.2815	Heat Input
211.2820	Heat Input Rate
211.2825	Heat-Resistant Coating
211.2830	Heatset
211.2840	Heatset Web Letterpress Printing Line
211.2850	Heatset Web Offset Lithographic Printing Line
211.2870	Heavy Liquid
211.2890	Heavy Metals
211.2910	Heavy Off-Highway Vehicle Products
211.2930	Heavy Off-Highway Vehicle Products Coating
211.2950	Heavy Off-Highway Vehicle Products Coating Line
211.2955	High Bake Coating
211.2956	High Build Primer Surfacer
211.2958	High Gloss Coating
211.2960	High-Performance Architectural Coating
211.2965	High Precision Optic
211.2970	High Temperature Aluminum Coating
211.2980	High Temperature Coating
211.2990	High Volume Low Pressure (HVLP) Spray
211.3010	Hood
211.3030	Hot Well
211.3050	Housekeeping Practices
211.3070	Incinerator
211.3090	Indirect Heat Transfer
211.3095	Indoor Floor Covering Installation Adhesive
211.3100	Industrial Boiler
211.3110	Ink
211.3120	In-Line Repair

211.3130	In-Process Tank
211.3150	In-Situ Sampling Systems
211.3170	Interior Body Spray Coat
211.3190	Internal-Floating Roof
211.3210	Internal Transferring Area
211.3215	Janitorial Cleaning
211.3230	Lacquers
211.3240	Laminate
211.3250	Large Appliance
211.3270	Large Appliance Coating
211.3290	Large Appliance Coating Line
211.3300	Lean-Burn Engine
211.3305	Letterpress Printing Line
211.3310	Light Liquid
211.3330	Light-Duty Truck
211.3350	Light Oil
211.3355	Lime Kiln
211.3370	Liquid/Gas Method
211.3390	Liquid-Mounted Seal
211.3410	Liquid Service
211.3430	Liquids Dripping
211.3450	Lithographic Printing Line
211.3470	Load-Out Area
211.3475	Load Shaving Unit
211.3480	Loading Event
211.3483	Long Dry Kiln
211.3485	Long Wet Kiln
211.3487	Low-NOx Burner
211.3490	Low Solvent Coating
211.3500	Lubricating Oil
211.3505	Lubricating Wax/Compound
211.3510	Magnet Wire
211.3530	Magnet Wire Coating
211.3550	Magnet Wire Coating Line
211.3555	Maintenance Cleaning
211.3570	Major Dump Pit
211.3590	Major Metropolitan Area (MMA)
211.3610	Major Population Area (MPA)
211.3620	Manually Operated Equipment
211.3630	Manufacturing Process
211.3650	Marine Terminal
211.3660	Marine Vessel
211.3665	Mask Coating
211.3670	Material Recovery Section
211.3690	Maximum Theoretical Emissions
211.3695	Maximum True Vapor Pressure

211.3705	Medical Device
211.3707	Medical Device and Pharmaceutical Manufacturing
211.3710	Metal Furniture
211.3730	Metal Furniture Coating
211.3750	Metal Furniture Coating Line
211.3760	Metallic Coating
211.3770	Metallic Shoe-Type Seal
211.3775	Metal to Urethane/Rubber Molding or Casting Adhesive
211.3780	Mid-Kiln Firing
211.3785	Military Specification Coating
211.3790	Miscellaneous Fabricated Product Manufacturing Process
211.3810	Miscellaneous Formulation Manufacturing Process
211.3820	Miscellaneous Industrial Adhesive Application Operation
211.3830	Miscellaneous Metal Parts and Products
211.3850	Miscellaneous Metal Parts and Products Coating
211.3870	Miscellaneous Metal Parts or Products Coating Line
211.3890	Miscellaneous Organic Chemical Manufacturing Process
211.3910	Mixing Operation
211.3915	Mobile Equipment
211.3925	Mold Seal Coating
211.3930	Monitor
211.3950	Monomer
211.3960	Motor Vehicles
211.3961	Motor Vehicle Adhesive
211.3965	Motor Vehicle Refinishing
211.3966	Motor Vehicle Weatherstrip Adhesive
211.3967	Mouth Waterproofing Sealant
211.3968	Multi-Colored Coating
211.3969	Multi-Component Coating
211.3970	Multiple Package Coating
211.3975	Multipurpose Construction Adhesive
211.3980	Nameplate Capacity
211.3985	Natural Finish Hardwood Plywood Panel
211.3990	New Grain-Drying Operation (Repealed)
211.4010	New Grain-Handling Operation (Repealed)
211.4030	No Detectable Volatile Organic Material Emissions
211.4050	Non-Contact Process Water Cooling Tower
211.4052	Non-Convertible Coating
211.4055	Non-Flexible Coating
211.4065	Non-Heatset
211.4067	NO _x Trading Program
211.4070	Offset
211.4080	One-Component Coating
211.4090	One Hundred Percent Acid
211.4110	One-Turn Storage Space
211.4130	Opacity

211.4150	Opaque Stains
211.4170	Open Top Vapor Degreasing
211.4190	Open-Ended Valve
211.4210	Operator of a Gasoline Dispensing Operation or Operator of a Gasoline Dispensing Facility
211.4220	Optical Coating
211.4230	Organic Compound
211.4250	Organic Material and Organic Materials
211.4260	Organic Solvent
211.4270	Organic Vapor
211.4280	Other Glass
211.4285	Outdoor Floor Covering Installation Adhesive
211.4290	Oven
211.4310	Overall Control
211.4330	Overvarnish
211.4350	Owner of a Gasoline Dispensing Operation or Owner of a Gasoline Dispensing Facility
211.4370	Owner or Operator
211.4390	Packaging Rotogravure Printing
211.4410	Packaging Rotogravure Printing Line
211.4430	Pail
211.4450	Paint Manufacturing Source or Paint Manufacturing Plant
211.4455	Pan-Backing Coating
211.4460	Panel
211.4470	Paper Coating
211.4490	Paper Coating Line
211.4510	Particulate Matter
211.4530	Parts Per Million (Volume) or PPM (Vol)
211.4540	Perimeter Bonded Sheet Flooring
211.4550	Person
211.4590	Petroleum
211.4610	Petroleum Liquid
211.4630	Petroleum Refinery
211.4650	Pharmaceutical
211.4670	Pharmaceutical Coating Operation
211.4690	Photochemically Reactive Material
211.4710	Pigmented Coatings
211.4730	Plant
211.4735	Plastic
211.4740	Plastic Part
211.4750	Plasticizers
211.4760	Plastic Solvent Welding Adhesive
211.4765	Plastic Solvent Welding Adhesive Primer
211.4768	Pleasure Craft
211.4769	Pleasure Craft Surface Coating
211.4770	PM-10

211.4790	Pneumatic Rubber Tire Manufacture
211.4810	Polybasic Organic Acid Partial Oxidation Manufacturing Process
211.4830	Polyester Resin Material(s)
211.4850	Polyester Resin Products Manufacturing Process
211.4870	Polystyrene Plant
211.4890	Polystyrene Resin
211.4895	Polyvinyl Chloride Plastic (PVC Plastic)
211.4900	Porous Material
211.4910	Portable Grain-Handling Equipment
211.4930	Portland Cement Manufacturing Process Emission Source
211.4950	Portland Cement Process or Portland Cement Manufacturing Plant
211.4960	Potential Electrical Output Capacity
211.4970	Potential to Emit
211.4990	Power Driven Fastener Coating
211.5010	Precoat
211.5012	Prefabricated Architectural Coating
211.5015	Preheater Kiln
211.5020	Preheater/Precalciner Kiln
211.5030	Pressure Release
211.5050	Pressure Tank
211.5060	Pressure/Vacuum Relief Valve
211.5061	Pretreatment Coating
211.5062	Pretreatment Wash Primer
211.5065	Primary Product
211.5070	Prime Coat
211.5075	Primer Sealant
211.5080	Primer Sealer
211.5090	Primer Surfacer Coat
211.5110	Primer Surfacer Operation
211.5130	Primers
211.5140	Printed Interior Panel
211.5150	Printing
211.5170	Printing Line
211.5185	Process Emission Source
211.5190	Process Emission Unit
211.5195	Process Heater
211.5210	Process Unit
211.5230	Process Unit Shutdown
211.5245	Process Vent
211.5250	Process Weight Rate
211.5270	Production Equipment Exhaust System
211.5310	Publication Rotogravure Printing Line
211.5330	Purged Process Fluid
211.5335	Radiation Effect Coating
211.5340	Rated Heat Input Capacity
211.5350	Reactor

211.5370	Reasonably Available Control Technology (RACT)
211.5390	Reclamation System
211.5400	Red Coating
211.5410	Refiner
211.5430	Refinery Fuel Gas
211.5450	Refinery Fuel Gas System
211.5470	Refinery Unit or Refinery Process Unit
211.5480	Reflective Argent Coating
211.5490	Refrigerated Condenser
211.5500	Regulated Air Pollutant
211.5510	Reid Vapor Pressure
211.5520	Reinforced Plastic Composite
211.5530	Repair
211.5535	Repair Cleaning
211.5550	Repair Coat
211.5570	Repaired
211.5580	Repowering
211.5585	Research and Development Operation
211.5590	Residual Fuel Oil
211.5600	Resist Coat
211.5610	Restricted Area
211.5630	Retail Outlet
211.5640	Rich-Burn Engine
211.5650	Ringelmann Chart
211.5670	Roadway
211.5690	Roll Coater
211.5710	Roll Coating
211.5730	Roll Printer
211.5750	Roll Printing
211.5770	Rotogravure Printing
211.5790	Rotogravure Printing Line
211.5800	Rubber
211.5810	Safety Relief Valve
211.5830	Sandblasting
211.5850	Sanding Sealers
211.5860	Scientific Instrument
211.5870	Screening
211.5875	Screen Printing
211.5880	Screen Printing on Paper
211.5885	Screen Reclamation
211.5890	Sealer
211.5910	Semi-Transparent Stains
211.5930	Sensor
211.5950	Set of Safety Relief Valves
211.5970	Sheet Basecoat
211.5980	Sheet-Fed

211.5985	Sheet Rubber Lining Installation
211.5987	Shock-Free Coating
211.5990	Shotblasting
211.6010	Side-Seam Spray Coat
211.6012	Silicone-Release Coating
211.6015	Single-Ply Roof Membrane
211.6017	Single-Ply Roof Membrane Adhesive Primer
211.6020	Single-Ply Roof Membrane Installation and Repair Adhesive
211.6025	Single Unit Operation
211.6030	Smoke
211.6050	Smokeless Flare
211.6060	Soft Coat
211.6063	Solar-Absorbent Coating
211.6065	Solids Turnover Ratio (R_T)
211.6070	Solvent
211.6090	Solvent Cleaning
211.6110	Solvent Recovery System
211.6130	Source
211.6140	Specialty Coatings
211.6145	Specialty Coatings for Motor Vehicles
211.6150	Specialty High Gloss Catalyzed Coating
211.6170	Specialty Leather
211.6190	Specialty Soybean Crushing Source
211.6210	Splash Loading
211.6230	Stack
211.6250	Stain Coating
211.6270	Standard Conditions
211.6290	Standard Cubic Foot (scf)
211.6310	Start-Up
211.6330	Stationary Emission Source
211.6350	Stationary Emission Unit
211.6355	Stationary Gas Turbine
211.6360	Stationary Reciprocating Internal Combustion Engine
211.6370	Stationary Source
211.6390	Stationary Storage Tank
211.6400	Stencil Coat
211.6405	Sterilization Indicating Ink
211.6410	Storage Tank or Storage Vessel
211.6420	Strippable Spray Booth Coating
211.6425	Stripping
211.6427	Structural Glazing
211.6430	Styrene Devolatilizer Unit
211.6450	Styrene Recovery Unit
211.6460	Subfloor
211.6470	Submerged Loading Pipe
211.6490	Substrate

211.6510	Sulfuric Acid Mist
211.6530	Surface Condenser
211.6535	Surface Preparation
211.6540	Surface Preparation Materials
211.6550	Synthetic Organic Chemical or Polymer Manufacturing Plant
211.6570	Tablet Coating Operation
211.6580	Texture Coat
211.6585	Thin Metal Laminating Adhesive
211.6587	Thin Particleboard
211.6590	Thirty-Day Rolling Average
211.6610	Three-Piece Can
211.6620	Three or Four Stage Coating System
211.6630	Through-the-Valve Fill
211.6635	Tileboard
211.6640	Tire Repair
211.6650	Tooling Resin
211.6670	Topcoat
211.6690	Topcoat Operation
211.6695	Topcoat System
211.6710	Touch-Up
211.6720	Touch-Up Coating
211.6730	Transfer Efficiency
211.6740	Translucent Coating
211.6750	Tread End Cementing
211.6770	True Vapor Pressure
211.6780	Trunk Interior Coating
211.6790	Turnaround
211.6810	Two-Piece Can
211.6825	Underbody Coating
211.6830	Under-the-Cup Fill
211.6850	Undertread Cementing
211.6860	Uniform Finish Blender
211.6870	Unregulated Safety Relief Valve
211.6880	Vacuum Metallizing
211.6885	Vacuum Metalizing Coating
211.6890	Vacuum Producing System
211.6910	Vacuum Service
211.6930	Valves Not Externally Regulated
211.6950	Vapor Balance System
211.6970	Vapor Collection System
211.6990	Vapor Control System
211.7010	Vapor-Mounted Primary Seal
211.7030	Vapor Recovery System
211.7050	Vapor-Suppressed Polyester Resin
211.7070	Vinyl Coating
211.7090	Vinyl Coating Line

211.7110	Volatile Organic Liquid (VOL)
211.7130	Volatile Organic Material Content (VOMC)
211.7150	Volatile Organic Material (VOM) or Volatile Organic Compound (VOC)
211.7170	Volatile Petroleum Liquid
211.7190	Wash Coat
211.7200	Washoff Operations
211.7210	Wastewater (Oil/Water) Separator
211.7220	Waterproof Resorcinol Glue
211.7230	Weak Nitric Acid Manufacturing Process
211.7240	Weatherstrip Adhesive
211.7250	Web
211.7270	Wholesale Purchase - Consumer
211.7290	Wood Furniture
211.7310	Wood Furniture Coating
211.7330	Wood Furniture Coating Line
211.7350	Woodworking
211.7400	Yeast Percentage

211.APPENDIX A Rule into Section Table

211.APPENDIX B Section into Rule Table

AUTHORITY: Implementing Sections 9, 9.1, 9.9 and 10 and authorized by Sections 27 of the Environmental Protection Act [415 ILCS 5/9, 9.1, 9.9, 10, and 27].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 201: Definitions, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5, p. 777, effective February 3, 1979; amended in R78-3 and 4, 35 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13590; amended in R82-1 (Docket A) at 10 Ill. Reg. 12624, effective July 7, 1986; amended in R85-21(A) at 11 Ill. Reg. 11747, effective June 29, 1987; amended in R86-34 at 11 Ill. Reg. 12267, effective July 10, 1987; amended in R86-39 at 11 Ill. Reg. 20804, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 787, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7284, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7621, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10862, effective June 27, 1989; amended in R89-8 at 13 Ill. Reg. 17457, effective January 1, 1990; amended in R89-16(A) at 14 Ill. Reg. 9141, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 5223, effective March 28, 1991; amended in R88-14 at 15 Ill. Reg. 7901, effective May 14, 1991; amended in R91-10 at 15 Ill. Reg. 15564, effective October 11, 1991; amended in R91-6 at 15 Ill. Reg. 15673, effective October 14, 1991; amended in R91-22 at 16 Ill. Reg. 7656, effective May 1, 1992; amended in R91-24 at 16 Ill. Reg. 13526, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16504, effective September 27, 1993; amended in R93-11 at 17 Ill. Reg. 21471, effective December 7, 1993; amended in R93-14 at 18 Ill. Reg. 1253, effective January 18, 1994; amended in R94-12 at 18 Ill. Reg. 14962, effective September 21, 1994; amended in R94-14 at 18 Ill. Reg. 15744, effective October 17, 1994; amended in R94-15 at 18 Ill. Reg. 16379, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16929, effective November 15, 1994; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6823, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7344, effective May 22, 1995;

amended in R95-2 at 19 Ill. Reg. 11066, effective July 12, 1995; amended in R95-16 at 19 Ill. Reg. 15176, effective October 19, 1995; amended in R96-5 at 20 Ill. Reg. 7590, effective May 22, 1996; amended in R96-16 at 21 Ill. Reg. 2641, effective February 7, 1997; amended in R97-17 at 21 Ill. Reg. 6489, effective May 16, 1997; amended in R97-24 at 21 Ill. Reg. 7695, effective June 9, 1997; amended in R96-17 at 21 Ill. Reg. 7856, effective June 17, 1997; amended in R97-31 at 22 Ill. Reg. 3497, effective February 2, 1998; amended in R98-17 at 22 Ill. Reg. 11405, effective June 22, 1998; amended in R01-9 at 25 Ill. Reg. 108, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4582, effective March 15, 2001; amended in R01-17 at 25 Ill. Reg. 5900, effective April 17, 2001; amended in R05-16 at 29 Ill. Reg. 8181, effective May 23, 2005; amended in R05-11 at 29 Ill. Reg. 8892, effective June 13, 2005; amended in R04-12/20 at 30 Ill. Reg. 9654, effective May 15, 2006; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R08-6 at 32 Ill. Reg. 1387, effective January 16, 2008; amended in R07-19 at 33 Ill. Reg. 11982, effective August 6, 2009; amended in R08-19 at 33 Ill. Reg. 13326, effective August 31, 2009; amended in R10-7 at 34 Ill. Reg. 1391, effective January 11, 2010; amended in R10-8 at 34 Ill. Reg. 9069, effective June 25, 2010; amended in R10-20 at 34 Ill. Reg. 14119, effective September 14, 2010; amended in R11-23 at 35 Ill. Reg. 13451, effective July 27, 2011; amended in R12-24 at 37 Ill. Reg. 1662, effective January 28, 2013; amended in R13-1 at 37 Ill. Reg. 1913, effective February 4, 2013; amended in R14-7 at 37 Ill. Reg. _____, effective _____.

Section 211.7150 Volatile Organic Material (VOM) or Volatile Organic Compound (VOC)

“Volatile organic material” (also “VOM”) or “volatile organic compound” (also “VOC”) means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, that participates in atmospheric photochemical reactions.

- a) This definition of VOM includes any organic compound that participates in atmospheric photochemical reactions, other than the compounds listed in this subsection (a). USEPA has determined that the compounds listed in this subsection (a) have negligible photochemical reactivity. USEPA has excluded the listed negligibly-reactive compounds from the definition of VOM for purposes of VOM limitations or VOM content requirements. However, USEPA has required that certain of these compounds be considered VOM for purposes of recordkeeping, emissions reporting, and inventory requirements, as described in subsection (e) of this Section.

Acetone (2-propanone or dimethylketone)

Bis(difluoromethoxy)(difluoro)methane (CHF₂OCF₂OCHF₂ or HFE-236cal2)

1,2-Bis(difluoromethoxy)-1,1,2,2-tetrafluoroethane (CHF₂OCF₂CF₂OCHF₂ or HFE-338pcc13)

tertiary-Butyl acetate

1-Chloro-1,1-difluoroethane (HCFC-142b)

Chlorodifluoromethane (CFC-22)

1-Chloro-1-fluoroethane (HCFC-151a)

~~2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)~~

Chlorofluoromethane (HCFC-31)
 Chloropentafluoroethane (CFC-115)
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
trans-1-chloro-3,3,3-trifluoroprop-1-ene
 1,1,1,2,2,3,4,5,5,5-Decafluoro-3-methoxy-4-trifluoromethyl-pentane
 (HFE-7300, L-14787, or $C_2F_5CF(OCH_3)CF(CF_3)_2$)
 1,1,1,2,3,4,4,5,5,5-Decafluoropentane (HFC 43-10mee)
 Dichlorodifluoromethane (CFC-12)
 1,1-Dichloro-1-fluoroethane (HCFC-141b)
 3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)
 1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)
 1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
 1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)
 1,1-Difluoroethane (HFC-152a)
 Difluoromethane (HFC-32)
(Difluoromethoxy)(difluoro)methane (CHF_2OCHF_2 or HFE-134)
1-(Difluoromethoxy)-2-[(difluoromethoxy)(difluoro)methoxy]-1,1,2,2-
tetrafluoroethane ($CHF_2OCF_2OCF_2CF_2OCHF_2$ or HFE-43-10pccc)
 2-(Difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane
 ($(CF_3)_2CFCF_2OCH_3$) ($(CF_3)_2CFCF_2OCH_3$)
 Dimethyl carbonate
 Ethane
 2-(Ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane
 ($(CF_3)_2CFCF_2OC_2H_5$) ($(CF_3)_2CFCF_2OC_2H_5$)
Ethylfluoride (HFC-161)
3-Ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane
(HFE-7500)
 1-Ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$ - $C_4F_9OC_2H_5$ or
 HFE-7200)
~~3-Ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)hexane~~
~~(HFE-7500)~~
Ethylfluoride (HFC-161)
 1,1,1,2,2,3,3-Heptafluoro-3-methoxypropane ($n-C_3F_7OCH_3$ - $n-C_3F_7OCH_3$
 or HFE-7000)
 1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)
 1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)
 1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)
 Methane
 Methyl acetate
 Methylene chloride (dichloromethane)
 Methyl formate (~~$HCOOCH_3$~~) ($CHOOCH_3$)
 1,1,1,2,2,3,3,4,4-Nonafluoro-4-methoxybutane ($C_4F_9OCH_3$ - $C_4F_9OCH_3$ or
 HFE-7100)
 Parachlorobenzotrifluoride (PCBTF)
 1,1,1,3,3-Pentafluorobutane (HFC-365mfc)
 Pentafluoroethane (HFC-125)

1,1,2,2,3-Pentafluoropropane (HFC-245ca)
 1,1,2,3,3-Pentafluoropropane (HFC-245ea)
 1,1,1,2,3-Pentafluoropropane (HFC-245eb)
 1,1,1,3,3-Pentafluoropropane (HFC-245fa)
 Perchloroethylene (tetrachloroethylene)
 Perfluorocarbon compounds that fall into the following classes:
 Cyclic, branched, or linear, completely fluorinated alkanes
 Cyclic, branched, or linear, completely fluorinated ethers with no
 unsaturations
 Cyclic, branched, or linear, completely fluorinated tertiary amines
 with no unsaturations
 Sulfur-containing perfluorocarbons with no unsaturations and with
 sulfur bonds only to carbon and fluorine
 Propylene carbonate (4-methyl-1,3-dioxolan-2-one)
 Siloxanes: cyclic, branched, or linear completely-methylated
 1,1,2,2-Tetrafluoroethane (HFC-134)
 1,1,1,2-Tetrafluoroethane (HFC-134a)
 trans-1,3,3,3-Tetrafluoropropene (HFO-1234ze)
 1,1,1-Trichloroethane (methyl chloroform)
 Trichlorofluoromethane (CFC-11)
 1,1,2-Trichloro-1,2,2-trifluoroethane (CFC-113)
 1,1,1-Trifluoro-2,2-dichloroethane (HCFC-123)
 1,1,1-Trifluoroethane (HFC-143a)
 Trifluoromethane (HFC-23)

- b) For purposes of determining VOM emissions and compliance with emissions limits, VOM will be measured by the test methods in the approved implementation plan or 40 CFR 60, ~~Appendix appendix~~ A, incorporated by reference at 35 Ill. Adm. Code 215.105, 218.112, and 219.112, as applicable, or by source-specific test methods that have been established pursuant to a permit issued under a program approved or promulgated under Title V of the Clean Air Act; under 40 CFR 51, ~~Subpart subpart~~ I or ~~Appendix appendix~~ S, incorporated by reference at 35 Ill. Adm. Code 218.112 and 219.112; or under 40 CFR 52.21, incorporated by reference at 35 Ill. Adm. Code 218.112 and 219.112, as applicable. Where such a method also measures compounds with negligible photochemical reactivity, these negligibly-reactive compounds may be excluded as VOM if the amount of such compounds is accurately quantified and the exclusion is approved by the Agency.
- c) As a precondition to excluding these negligibly-reactive compounds as VOM, or at any time thereafter, the Agency may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the Agency, the amount of negligibly-reactive compounds in the source's emissions.
- d) The USEPA will not be bound by any State determination as to appropriate methods for testing or monitoring negligibly-reactive compounds if such determination is not reflected in any of the test methods in subsection (b) above.

- e) The following compound is VOM for the purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements that apply to VOM, and it must be uniquely identified in emission reports, but it is not VOM for the purposes of VOM emissions limitations or VOM content requirements: t-butyl acetate.

(Source: Amended at 37 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

I, Don A. Brown, Acting Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on November 21, 2013, by a vote of 4-0.

A handwritten signature in black ink that reads "Don A. Brown". The signature is written in a cursive style with a large, looped initial "D".

Don A. Brown, Acting Clerk
Illinois Pollution Control Board