

ILLINOIS POLLUTION CONTROL BOARD
February 27, 1992

IN THE MATTER OF:)
) R91-24
EXEMPTIONS FROM THE) (Identical in Substance Rules)
DEFINITION OF VOM)

PROPOSAL FOR PUBLIC COMMENT.

PROPOSED OPINION AND ORDER OF THE BOARD (by J. Anderson):¹

This proceeding updates various provisions of Parts 203, 211, 215, 218, and 219 to reflect the most recent pronouncement of USEPA's "Recommended Policy on the Control of Volatile Organic Compounds." In effect, this docket completes the amendments effected in R91-10, effective October 11, 1991. In that proceeding, the Board amended the Part 211 and 215 rules by our September 12, 1991 Opinion and Order in response to USEPA additions to the list of chemicals exempted from the definition of volatile organic materials (VOMs).² At 56 Fed. Reg. 11418, March 18, 1991, USEPA added five compounds and four classes of compounds to the list of negligibly photoreactive compounds exempt from regulation under state implementation plans (SIPs). Those compounds constituted additions to those compounds exempted in R89-8, effective January 1, 1990. USEPA simultaneously proposed codification of the list at 56 Fed. Reg. 11387, on March 18, 1991. USEPA has now codified these exemptions effective March 4, 1992. 57 Fed. Reg. 3941 (Feb. 3, 1992).

Unaffected by the R91-10 rulemaking, and as discussed in the Board's Opinion and Order in that matter, were the definition of "volatile organic compound" at 35 Ill. Adm. Code 203.145 and the definitions of "volatile organic material" at recently-adopted Sections 218.104 and 219.104. Part 203 sets forth the rules applicable to construction and modification of major stationary sources. Part 218 governs emissions of volatile organic material from stationary sources located in the Chicago metropolitan area (Cook, DuPage, Kane, Lake, McHenry and Will counties).³ Part 219

¹The Board appreciates the contribution of Michael J. McCambridge, Board attorney, in this matter.

² USEPA consistently designates these "volatile organic compounds" or "VOCs." Both designations refer to the same matter, and all references in this Opinion and Order to "VOM" refer to what USEPA calls "VOC."

³ Docket R91-28 concerns a proposed expansion of the Chicago metropolitan area for the purposes of VOM control. If adopted, this would expand the Chicago metropolitan area to include Goose Lake and Aux Sable townships in Grundy County and Oswego Township in Kendall County.

governs the emissions of volatile organic material from stationary sources located in the metropolitan East St. Louis area (Madison, Monroe, and St. Clair counties). The Board reserved this docket during the pendency of R91-10 in order to complete the amendments to Parts 203, 218, and 219, which were not affected by that matter. This proceeding extends the exemption to include all federally-exempted compounds for all organic emissions from stationary sources in Illinois.

The Board adopts this Proposed Opinion and Order pursuant to the identical-in-substance mandate under Section 9.1(e) of the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111½, par. 1009.1(e). Section 9.1(e) provides for quick adoption of regulations that are "identical in substance" to certain published federal policy statements. It further provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR).

The primary Federal Register citation to the revision in the federal policy statement used in this Opinion and Order is as follows:

57 Fed. Reg. 3942	February 3, 1992 (amending 40 CFR 51.100(s) (definition of "volatile organic compound"), effective March 3, 1992).
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This proceeding is also based on the following Federal Register citation:

56 Fed. Reg. 11418	March 18, 1991.
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The March 18, 1991 revision to USEPA's "Recommended Policy on the Control of Volatile Organic Compounds" added five compounds and four classes of compounds to the list of negligibly-photochemically-reactive compounds exempted from regulation as volatile organic compounds. The February 3, 1992 action codified the existing USEPA policy, by adoption of the 40 CFR 51.100(s) definition of "volatile organic compound." USEPA simultaneously withdrew its recommended policy as moot on February 3, 1992. 57 Fed. Reg. 3943 (Feb. 3, 1992).

In the course of codifying its policy, USEPA clarified it. USEPA added language that excludes a number of carbon compounds from the definition. USEPA clarified the monitoring requirement for exempted compounds and added specificity to the methods for testing for those compounds.

HISTORICAL SUMMARY

The Board adopted the original federal Recommended Policy statements and several subsequent revisions in October, 1989:

R89-8 104 PCB 505, October 18, 1989; 13 Ill. Reg. 17457, effective October 27, 1989.

The Board further implemented and adopted federal revisions to this policy as follows:

R91-10 September 12, 1991; 15 Ill. Reg. 15564 & 15595, effective October 11, 1991.

R91-24 This docket.

The Federal Register issues included in each docket are recited in that respective Opinion and Order.

PUBLIC COMMENTS

The Board invites public comments on the proposed amendments. We will receive public comments until at least 45 days after Notices of Proposed Amendments appear in the Illinois Register on this matter. Section 7.2 and 9.1(e) of the Act provide that this proceeding is not subject to Section 5 of the Administrative Procedure Act (Ill. Rev. Stat. 1989 ch. 127, par. 1005). Therefore, it is not subject to First Notice or Second Notice review by the Joint Committee on Administrative Rules. After the 45 day public comment period has expired, the Board will promptly proceed to adopt amendments based on today's proposal.

DISCUSSION

At 56 Fed. Reg. 11418, March 18, 1991, USEPA announced a change in its "Recommended Policy on the Control of Volatile Organic Compounds," adding five halocarbon compounds and four classes of perfluorocarbon compounds to the list of negligibly photoreactive compounds exempt from regulation under state implementation plans. Those compounds are as follows:

1. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
2. Pentafluoroethane (HFC-125)
3. 1,1,2,2-tetrafluoroethane (HFC-134)
4. 1,1,1-trifluoroethane (HFC-143a)
5. 1,1-difluoroethane (HFC-152a)

Those classes of compounds are as follows:

1. Cyclic, branched, or linear, completely fluorinated alkanes.
2. Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations.
3. Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations.
4. Sulphur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Under this policy, states may not take credit for controlling these compounds in their ozone state implementation plans (SIPs). USEPA simultaneously proposed to amend the federal implementation plan (FIP) for Chicago and to amend 40 CFR 51 to add a general definition of VOM consistent with its policy revision. 57 Fed. Reg. 3945 (Feb. 3, 1992); 56 Fed. Reg. 11387 (Mar. 18, 1991). USEPA adopted the new definition of VOM effective March 3, 1992. 57 Fed. Reg. 3941 (Feb. 3, 1992). USEPA withdrew its policy revision as moot when it finally adopted the new definition of VOM, which, in effect, codified the revised policy. 57 Fed. Reg. 3944-45 (Feb. 3, 1992); see 56 Fed. Reg. at 11388 & 11419.

Section 9.1(e) Mandate

In R91-10, the Board raised the issue of what impact the federal adoption of the exemptions as a rule and accompanying withdrawal of the recommended federal policy would have on its Section 9.1(e) mandate. After a full discussion of this issue, the Board determined that the Section 9.1(e) mandate would apply to a codified policy because the heart of the mandate is the language: "The Board shall exempt from regulation under the State Implementation Plan for ozone the volatile organic compounds which have been determined by the U.S. Environmental Protection Agency to be exempt from regulation under state implementation plans for ozone due to negligible photochemical reactivity." Ill. Rev. Stat. 1989 ch. 111½, par. 1009.1(e). The Board determined that the statutory language relating to "the U.S. Environmental Protection Agency exemptions or deletion of exemptions published in policy statements on the control of volatile organic compounds in the Federal Register . . .," Ill. Rev. Stat. 1989, ch. 111½, par. 1009.1(e), further authorized us to employ an "unorthodox," non-codified source for as basis of the exemptions. Opinion and Order of September 12, 1991 in R91-10 at 5-7. The Board concluded as follows:

Under this analysis, the clear intent of the General Assembly is that the Board must adopt the federal exemptions by identical-in-substance rulemaking. The mandate that the Board apply federal

policy statements to this end is further authorization to base those regulations on their presently-existing sole source: federal policy statements. If USEPA chooses to employ the more conventional regulatory approach of codifying the exemptions, the mandate remains that the Board must adopt those exemptions by identical-in-substance procedures.

The Board believes that this is the interpretation that will best implement the intent of the General Assembly as embodied in Section 9.1(e). If the Board errs in its assessment, the General Assembly is free to further clarify its intent by later legislative amendment. However, the Board believes that by proceeding with this rulemaking despite USEPA's prospective change in approach, we will achieve the benefits for Illinois industry that the General Assembly desires, and we will attain greater consistency with the federal scheme for ozone control.

Therefore, the Board is adopting the proposed amendments without regard to the possibility that USEPA will likely moot the federal policy statement upon which it is based. The possibility exists that the Board will face the prospect of basing future amendments on federal rules, rather than on the policy statements referred to in Section 9.1(e). The Board will address that issue when it arises.

Opinion and Order of September 12, 1991 in R91-10 at 7-8.

The intervening codification of the recommended federal policy now confronts the Board with this issue. Without further elaboration of the reasons set forth in R91-10, the Board hereby determines that Section 9.1(e) mandates that we adopt the revised policy on negligibly-reactive compounds based on the codified USEPA exemptions from its definition of "volatile organic compound" (the same as "volatile organic material" in the Illinois Part 211, 215, 218, and 219 regulations) at 40 CFR 51.100(s). This is despite the USEPA withdrawal of its recommended policy as a result of the adoption of this definition as a regulation.

Parts Affected

In R91-10, the Board discussed the Agency observation that amendment of the Section 211.122 definition of VOM did not affect the corresponding definitions of "volatile organic compound," at Section 203.145, and "volatile organic material," at Sections

218.104 and 219.104.⁴ Since Parts 218 and 219 became effective after the publication of the Notice of Proposed Amendments for R91-10, the Board could not include amendment of those Parts in that docket without causing significant delay. In fact, the Agency advocated delay in that docket until USEPA adopted the proposed 40 CFR 51.100(s) definition. The Board concluded that this did not warrant delay in the R91-10 proceeding. See Opinion and Order of September 12, 1991 in R91-10 at 8-10. Rather, we reserved this docket to accomplish the amendment of Parts 203, 218, and 219 to reflect the revised federal recommended policy.

USEPA has now codified its policy on negligibly-reactive compounds. Therefore, the Board proceeds to harmonize the definitions of VOM appearing at Parts 203, 211, 218, and 219. Further, USEPA effected some minor clarifications of its recommended policy in the Federal Register preamble accompanying the adoption and in the text of the new definition of "volatile organic compound." The clarifications relate to exclusions of certain inorganic carbon compounds (i.e., the inclusion of only "organic" carbon compounds), the monitoring requirement, and state and federal authority to require monitoring. These clarifications warrant re-examination of the R91-10-amended Section 211.122 definition and Section 215.109 monitoring requirement.

Federal Clarification of "Organic"

At 40 CFR 52.741(a), USEPA has a definition of "organic material." This definition excludes certain carbon compounds that are not organic. On February 3, 1992, USEPA excluded certain of these compounds from the definition of "volatile organic compound" with the following language: "any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate." 40 CFR 51.100(s), as added at 57 Fed. Reg. 3945 (Feb. 3, 1992) (effective March 3, 1992).

This added language is identical to the Illinois definition of "organic compound," and essentially similar to parallel language in the definitions of "organic material," as presently codified at 35 Ill. Adm. Code 211.122, 218.104, and 219.104. The

⁴ As previously noted, Part 203 sets forth the rules applicable to construction and modification of major stationary sources; Part 218 governs emissions of organic material from stationary sources located in the Chicago metropolitan area (Cook, DuPage, Kane, Lake, McHenry and Will counties); and Part 219 governs the emissions of organic material from stationary sources located in the metropolitan East St. Louis area (Madison, Monroe, and St. Clair counties).

definitions of "volatile organic material," also at these Sections, depend on the definition of "organic compound" in such a way that there is no need for the Board to add language to further clarify any of these three definitions. The Section 203.145 definition of "volatile organic compound" includes, inter alia, exclusion of "carbon monoxide, carbon dioxide, carbonic acid, metal carbides, metal carbonates, [and] ammonium carbonate" Therefore, no revision of this Section is required by this federal clarification.

The Federal Monitoring Requirement

The codification of the USEPA policy in the definition of "volatile organic compound" at 40 CFR 51.100(s) raises issues related to the monitoring requirement. In adopting R91-10, the Board embodied its best understanding of the previously-enunciated USEPA policy relating to the occasional need to monitor for negligibly-reactive compounds. The Board observed that there were certain circumstances under which USEPA stated that monitoring might be required as a precondition to a compound's exemption. However, we noted that Senn Park Nursing Center v. Miller, 118 Ill. App. 3d 504, 455 N.E.2d 153 (1st Dist. 1983), aff'd 104 Ill. 2d 169, 470 N.E.2d 1069 (1984), would require codification of any authority to require any such monitoring. In conclusion, we codified the USEPA-enumerated circumstances that would necessitate monitoring:

[W]here direct quantification of volatile organic material emissions is not possible due to any of the following circumstances which make it necessary to quantify the exempt compound emissions in order to quantify volatile organic material emissions:

- a) VOMs and exempted compounds are mixed together in the same emissions;
- b) There are a large number of exempted compounds in the same emissions; or
- c) The chemical composition of the exempted compounds in the emissions is not known.

35 Ill. Adm. Code 215.109; see R91-10 Opinion and Order of September 12, 1991 at 15-16.

In the codified policy, USEPA authorizes the states to require monitoring for the exempted compounds. Whether or not Illinois reserves the authority to require monitoring, USEPA reserves the right to require such monitoring that demonstrates the amount of exempt compounds in a source's emissions. USEPA states as follows in the new definition of VOM:

- (2) For purposes of determining compliance with

emissions limits, [VOM] will be measured by the test methods in the approved State implementation plan (SIP) or 40 CFR part 60, appendix A, 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 such exclusion is approved by the [state].

- (3)' As a precondition to excluding these compounds as [VOM] or at any time thereafter, the [state] may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the [state], the amount of negligibly-reactive compounds in the source's emissions.
- (4) For purposes of Federal enforcement for a specific source, the [US]EPA shall use the test methods specified in the applicable EPA-approved SIP, in a permit issued pursuant to a program approved or promulgated under title V of the [federal Clean Air] Act, or under 40 CFR part 51, subpart I or appendix S, or under 40 CFR parts 52 or 60. The [US]EPA shall 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 above provisions.

Thus, the purpose of the monitoring is to quantify VOMs, as the Board perceived in R91-10. Further, although USEPA is leaving to state discretion whether the state requires the source to monitor or whether the state itself monitors, USEPA will require the monitoring as needed to quantify VOMs. See 57 Fed. Reg. 3944 (Feb. 3, 1992).

As to analytic methodology for analyses, the present Illinois definition of VOM refers to the methods incorporated by reference at 35 Ill. Adm. Code 215.105.⁵ That Section includes numerous references--among them is 40 CFR 60. If part of an approved SIP, the methods would satisfy the first segment of new 40 CFR 51.100(s)(2). Further, since Section 215.105 refers to 40 CFR 60 it includes, 40 CFR part 60, appendix A. It thus includes

⁵ The Sections 218.104 and 219.104 definitions of VOM provide: "For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. . . ." 35 Ill. Adm. Code 218.104 & 219.104 (definitions of "volatile organic material").

the source in the second segment of section 51.100(s)(2). We believe that no amendment is necessary to either Section 211.122 (definition of VOM) or Section 215.105 incorporations by reference) on this basis.

For these reasons, the Board believes that we accurately assessed the scope of the federal policy on September 12, 1991 in R91-10. No amendment to any Section is necessary based on further federal elaboration of its policy. However, one option open to the Board is to simply delete the circumstances enumerated as subsections (a) through (c). **The Board invites public comment** as to whether the existing regulatory language adequately embodies USEPA's codified policy and intent. In addition to the amendments to Sections 203.145, 218.104, and 219.104, the Board will open the monitoring provision at 35 Ill. Adm. Code 215.109 by proposing a minor amendment. This will allow subsequent amendment if public comments indicate the need to do so.

The minor amendment that the Board proposes is to add a Board Note to Section 215.109 that will direct the attention of the regulated community to the federal definition at 40 CFR 51.100(s)(2) through (s)(4). In particular, this Board Note will direct attention to federal paragraph (s)(4) and 57 Fed. Reg. 3944 (Feb. 3, 1992), in which USEPA makes it clear that it remains not bound by state determinations as to monitoring for negligibly-reactive compounds.

Amendments to Section 203.145

The Section 203.145 definition of "volatile organic compound" applies only within Part 203. The Board adopted it March 10, 1988 in R85-10, effective March 22, 1988. The words "volatile organic compound" appear in Sections 203.206(b) ("major stationary source"), 203.207(b) ("major modification of a source"), 203.209(e) (significant emissions determination), 203.303(d)(3) and (e) (baseline emissions offsets determinations), and 203.306 (analysis of alternative sites, processes, controls, etc.). This definition is identical to the Part 211 definition of "volatile organic material" with three major exceptions:

1. The Section 203.145 definition includes within its own terms both the compounds exempted from the Section 211.122 definitions of "organic material" (as not "organic") and "volatile organic material" (as negligibly-reactive),
2. The Section 203.145 definition does not refer to analytical procedures for quantification of volatile species (rather, this provision refers to volatility); and

3. Section 203.145 does not include several negligibly reactive compounds exempted from the Section 211.122 definition in R89-8 (October 18, 1989) and R91-10 (September 12, 1991):

from R89-8:

chlorodifluoroethane (HCFC-142b)
 dichlorofluoroethane (HCFC-141b)
 dichlorotrifluoroethane (HCFC-123)
 tetrafluoroethane (HFC-134a)

from R91-10:

2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
 1,1-difluoroethane (HFC-152a)
 pentafluoroethane (HFC-125)
 1,1,2,2-tetrafluoroethane (HFC-134)
 1,1,1-trifluoroethane (HFC-143a)

The following classes of compounds:

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;
 sulphur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

The differences based on the unitary structure of Section 203.145 are immaterial. The fact that the definition of "volatile organic compound" does not refer to a separate definition of "organic compound" does not affect its meaning. This structural difference does not affect the size of the regulated community or the activities that fall within the Board's regulations.

The differences based on references to analytical methods are not major, but they could potentially cause some entity to fall under the purview of Part 203 that is not subject to regulation under Part 215 or vice versa. Section 203.145 defines the objects of interest as "present in the atmosphere in a gaseous state." Section 211.122 defines those objects for the purposes of Part 215) as "participat[ing] in atmospheric photochemical reactions." The purpose of the Section 203.145 definition is permitting entities subject to regulation under Part 215. To the extent there a species that are "present in the atmosphere in a gaseous state" or "participat[ing] in atmospheric photochemical reactions" but not both, there is a potential gap

between the permit requirement and the emissions limitations.

It is interesting to note the extent of the changes made by USEPA in adopting its section 51.100(s) definition of "volatile organic compound." USEPA simultaneously amended its sections 51.165(a)(1)(xix), 51.166(b)(29), and part 51, appendix S (II)(A) lists of volatile organic compound exclusions to take the form of a definition of "volatile organic compound," which states that the meaning of this term is given at section 51.100(s). 40 CFR 51.165 sets forth the federal permit requirements. Section 51.166 sets forth the prevention of significant deterioration requirements. Appendix S is a clarification of the USEPA offset policy. These are all subjects within the scope of Part 203 of the Illinois rules. In adopting the definition of VOM, USEPA stated that it intended only to codify existing policy and not to effect any substantive change. See 57 Fed. Reg. 3943 (Feb. 3, 1992). Therefore, USEPA now employs the same definition of "volatile organic compound" for all purposes--for both permitting and for setting emissions limitations, and it is their apparent intent that this was always so.

The differences in the Section 203.145 and 211.122 definitions relating to exempted compounds are the primary focus of this docket. The Section 203.145 definition includes all compounds exempted under the federal recommended policy as of the date of its adoption (March 10, 1988). USEPA has since twice updated that policy (at 54 Fed. Reg. 1987, January 18, 1989, and at 56 Fed. Reg. 11418, March 18, 1991). The Board followed suit by amending the Section 211.122 definition of "volatile organic material" in R89-8, October 18, 1989 (effective October 27, 1989), and R91-10, September 12, 1991 (effective October 11, 1991). However, the Board did not amend the Section 203.145 definition at those times. Rather, the Board reserved this docket for that purpose. Today, we propose amendments to 35 Ill. Adm. Code 203.145 that will have the effect of exempting all compounds from regulation under Part 203 that are also exempted from regulation under Part 215 (and Parts 218 and 219).

Since Part 203 sets forth the permitting requirements for activities regulated under Part 215 (for which Section 211.122 provides the operative definition of "volatile organic material"), the Board believes that the Section 203.145 definition of "volatile organic compound" should have the same meaning that "volatile organic material" has for the purposes of Part 215. We believe that this is presently the case, but identical meaning is best accomplished through the same definitional language. The most efficient way to accomplish this is to place the definitional language in one location and refer to it from all other locations. This has the combined effects of more closely tracking the federal definition of "volatile organic compound" and exempting all negligibly-reactive compounds from state regulation as VOMs. This also facilitates future

amendments and minimizes the possibility of future oversight and the resulting discrepancies.

For these reasons, the Board proposes to amend Section 203.145 so that "volatile organic compound," for the purposes of Part 203, means "volatile organic material," as that term is defined at Section 211.122. The Board does not take the additional step at this time of proposing the substitution of "volatile organic material" for "volatile organic compound" where that term appears at Sections 203.206(b), 203.207(b), 203.209(e), 203.303(d)(3) and (e), and 203.306. **The Board invites public comment** as to whether this approach and the chosen language adequately embodies USEPA's codified policy and intent.

Amendments to Section 211.122

The Board proposes amendment of the Section 211.122 definition of "volatile organic material" to indicate the source of the exempted compounds. The Board adds a Board Note to this provision to reference the federal 40 CFR 51.100(s) definition of "volatile organic compound" and 57 Fed. Reg. 3941 (Feb. 3, 1992), at which USEPA adopted it. The Note also references 35 Ill. Adm. Code 215.109, the monitoring requirement. **The Board invites public comment** on this approach to the codified USEPA policy and intent.

Amendments to 215.109

The Board proposes amendment of Section 215.109 to indicate the source of the monitoring requirement for negligibly-reactive, exempted compounds. The Board adds a Board Note to this provision to reference 56 Fed. Reg. 11418 (Mar. 18, 1991), when USEPA introduced the concept of such monitoring, and the federal 40 CFR 51.100(s) definition of "volatile organic compound" and 57 Fed. Reg. 3941 (Feb. 3, 1992), at which USEPA adopted it. The Note also references 35 Ill. Adm. Code 211.122, the definition of "volatile organic material." **The Board invites public comment** on this approach to the codified USEPA policy and intent.

Amendments to Sections 218.104 and 219.104

As outlined above, Part 218 sets forth the rules applicable to emissions of volatile organic materials in the greater Chicago metropolitan area, and Part 219 sets forth the rules applicable for those emissions in the East St. Louis metropolitan area. Each Part became effective on August 16, 1991 (by Board orders of July 25, 1991, in R91-7 for the Chicago area and R91-8 for the

East St. Louis area).⁶ Section 218.104 sets forth the definition of VOM for Part 218, and Section 219.104 sets forth the definition for Part 219. Both definitions use identical language, with the exception of some language in Section 218.104 relating to the 3M Bedford Park facility, and both are essentially similar to the Section 211.122 definition of VOM prior to the prior VOM update, R91-10. The language at Section 218.104 relating to the 3M facility exempts the classes of compounds exempted from the Section 211.122 definition in R91-10. The language in both Sections 218.104 and 219.104 relating to the treatment of the exempted compounds adds nothing to the language already at Section 211.122.

For reasons similar to those recited for the Section 203.145 amendments above, the Board believes that references at 35 Ill. Adm. Code 218.104 and 219.104 to the definition of VOM at Section 211.122 is the preferred method of updating these definitions. This method assures not only that the present Part 215 exemptions become Parts 218 and 219 exemptions, it assures harmony in meaning of the same term for all areas of the state. It also minimizes the likelihood of future disparity through subsequent updates. Therefore, we propose amendment of Sections 218.104 and 219.104 so that "volatile organic material," for the purposes of Parts 218 and 219, means "volatile organic material," as that term is defined at Section 211.122. **The Board invites public comment** as to whether this approach and the chosen language adequately embodies USEPA's codified policy and intent.

ORDER

The Board hereby proposes the following amendments to its definitions of "volatile organic compound," at 35 Ill. Adm. Code 203.145, and "volatile organic material," at 35 Ill. Adm. Code 211.122, 218.104, and 219.104, and to the Section governing the monitoring for negligibly-reactive compounds, 35 Ill. Adm. Code 215.109.

Section 203.145 Volatile Organic Compound

"Volatile Organic Compound" means ~~any chemical compound of carbon, released to or present in the atmosphere in a gaseous state, including compounds which are liquids at standard conditions, but excluding the following compounds: methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metal carbides, metal carbonates, ammonium carbonate, 1,1,1-trichloroethane (methylenechloroform), methylene chloride, trichloro-~~

⁶ As also noted, this is less than 30 days before the Board Order that adopted the R91-10 amendments to the definition of VOM. Therefore, Parts 218 and 219 could not have become a part of that proceeding.

~~fluoroethane (Freon 113), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (CFC-22), trifluoromethane (FC-23), trichlorotrifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115). Standard conditions means a temperature of 70 F and a pressure of 14.7 pounds per square inch absolute (psia). "volatile organic material," as that term is defined at 35 Ill. Adm. Code 211.122.~~

(Source: Amended at 17 Ill. Reg. , effective
)

Section 211.122 Definitions

. . .

"Volatile Organic Material":

Any organic compound which participates in atmospheric photochemical reactions unless specifically exempted from this definition. For purposes of determining compliance with emission limits, volatile organic material shall be measured by the reference test methods incorporated by reference in 35 Ill. Adm. Code 215.105. Where such a method also inadvertently measures compounds with negligible photochemical reactivity, an owner or operator may exclude these negligibly reactive compounds.

For purposes of this definition, the following organic compounds have been determined to have negligible photochemical reactivity and are not volatile organic materials:

- Chlorodifluoroethane (HCFC-142b)
- Chlorodifluoromethane (CFC-22)
- Chloropentafluoroethane (CFC-115)
- Dichlorodifluoromethane (CFC-12)
- Dichlorofluoroethane (HCFC-141b)
- Dichlorotetrafluoroethane (CFC-114)
- Dichlorotrifluoroethane (HCFC-123)
- Ethane
- Methane
- Dichloromethane (Methylene chloride)
- Tetrafluoroethane (HFC-134a)
- Trichloroethane (Methyl chloroform)
- Trichlorofluoromethane (CFC-11)
- Trichlorotrifluoroethane (CFC-113)
- Trifluoromethane (FC-23)

Board Note: Derived from 40 CFR 51.100(s) (definition of "volatile organic compound"),

as added at 57 Fed. Reg. 3941 (Feb. 3, 1992).
See also 35 Ill. Adm. Code 215.109, a
provision which permits the Agency to require
monitoring for these compounds under certain
circumstances.

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(Source: Amended at 17 Ill. Reg. effective
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Section 215.109 Monitoring for Negligibly-Reactive Compounds

Any provision of 35 Ill. Adm. Code 211 notwithstanding, the Agency may require monitoring for any of the compounds listed at 35 Ill. Adm. Code 211.122 as exempted from the definition of "volatile organic material," as a precondition to such exemption where direct quantification of volatile organic material emissions is not possible due to any of the following circumstances which make it necessary to quantify the exempt compound emissions in order to quantify volatile organic material emissions:

- a) VOMs and exempted compounds are mixed together in the same emissions;
- b) There are a large number of exempted compounds in the same emissions; or
- c) The chemical composition of the exempted compounds in the emissions is not known.

Board Note: Derived from the USEPA "Recommended Policy on the Control of Volatile Organic Compounds," as amended at 56 Fed. Reg. 11418, March 18, 1991, and subsequently codified as 40 CFR 51.100(s), as added at 57 Fed. Reg. 3941 (Feb. 3, 1992). See also 35 Ill. Adm. Code 211.122 for the basic definition of "volatile organic material." USEPA is not bound by any state determination as to monitoring. 40 CFR 51.100(s)(4).

(Source: Amended at 17 Ill. Reg. _____, effective _____)

Section 218.104 Definitions

The following terms are defined for the purpose of this Part.

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~~"Volatile organic material (VOM) or volatile organic compound (VOC)" means any organic compound which participates in atmospheric photochemical reactions.~~

~~This includes any organic compound other than the following compounds: methane, ethane, methyl chloroform (1,1,1-trichloroethane), CFC-113 (trichlorotrifluoroethane), methylene chloride (dichloromethane), CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane), CFC-22 (chlorodifluoromethane), FC-23 (trifluoromethane), CFC-114 (dichlorotetrafluoroethane), CFC-115 (chloropentafluoroethane), HCFC-123 (dichlorotrifluoroethane), HFC-134a (tetrafluoroethane), HCFC-141b (dichlorofluoroethane) and HCFC-142b (chlorodifluoroethane). These compounds have been determined to have negligible photochemical reactivity. "volatile organic material," as that term is defined at 35 Ill. Adm. Code 211.122.~~

~~In addition, for the 3M Bedford Park facility in Cook County, the following compounds shall not be considered as volatile organic material or volatile organic compounds (and are, therefore, to be treated as water for the purpose of calculating the "less water" part of the coating or ink composition) for a period of time not to exceed one year after the date USEPA acts on 3M's petition, pending as of the date of promulgation of this rule, which seeks to have these compounds classified as exempt compounds: (1) cyclic, branched, or linear, completely fluorinated alkanes, (2) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations, (3) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and (4) sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.~~

~~For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds with negligible photochemical reactivity, an owner or operator may exclude these negligibly reactive compounds when determining compliance with an emissions standard.~~

(Source: Amended at 17 Ill. Reg. , effective)

Section 219.104 Definitions

The following terms are defined for the purpose of this Part.

. . .

"Volatile organic material (VOM) or volatile organic compound (VOC)" means ~~any organic compound which participates in atmospheric photochemical reactions. This includes any organic compound other than the following compounds: methane, ethane, methyl chloroform (1,1,1-trichloroethane), CFC-113 (trichlorotrifluoroethane), methylene chloride (dichloromethane), CFC-11 (trichlorofluoromethane), CFC-12 (dichlorodifluoromethane), CFC-22 (chlorodifluoromethane), FC-23 (trifluoromethane), CFC-114 (dichlorotetrafluoroethane), CFC-115 (chloropentafluoroethane), HCFC-123 (dichlorotrifluoroethane), HFC-134a (tetrafluoroethane), HCFC-141b (dichlorofluoroethane) and HCFC-142b (chlorodifluoroethane). These compounds have been determined to have negligible photochemical reactivity.~~ "volatile organic material," as that term is defined at 35 Ill. Adm. Code 211.122.

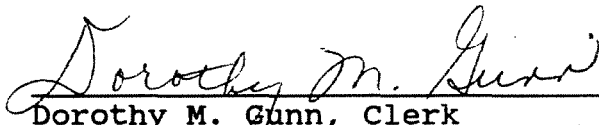
~~For purposes of determining compliance with emission limits, VOC will be measured by the approved test methods. Where such a method also inadvertently measures compounds with negligible photochemical reactivity, an owner or operator may exclude these negligibly reactive compounds when determining compliance with an emissions standard.~~

(Source: Amended at 17 Ill. Reg. , effective)

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IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above Proposed Opinion and Order was adopted on the 27th day of February, 1992, by a vote of 7-0.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board