

ILLINOIS POLLUTION CONTROL BOARD
April 11, 1991

IN THE MATTER OF:)
) R91-10
EXEMPTIONS FROM THE) (Identical in Substance Rules)
DEFINITION OF VOM)

PROPOSAL FOR PUBLIC COMMENT

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

The Board hereby proposes to amend its rules in response to USEPA additions to the list of chemicals exempted from the definition of volatile organic materials (VOMs)¹. 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 constitute additions to those compounds exempted in R89-8, effective January 1, 1990. The Board directs attention to that prior docket for information relating to the original listing of exempted compounds.

This Proposal for Public Comment is adopted pursuant to the identical-in-substance mandate under Section 9.1(e) of the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111 $\frac{1}{2}$, par. 1009.1(e). Section 9.1(e) provides for quick adoption of regulations which are "identical in substance" to certain published federal policy statements and 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 Federal Register citation to the revision in the federal policy statement used in this Opinion and Order is as follows:

56 Fed. Reg. 11418

March 18, 1991

The revision to USEPA's "Recommended Policy on the Control of Volatile Organic Compounds" adds five compounds and four classes of compounds to the list of negligibly-photochemically-reactive compounds exempted from regulation as volatile organic compounds.

SUBMITTING PUBLIC COMMENTS

The Board will submit this proposal for public comment in the Illinois Register. The statutory public comment period will

¹ 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."

end 45 days after the date of publication in the Illinois Register. In the course of the following discussion, the Board invites comment on several specific aspects of this proposal. It is important that commenters make their submissions promptly and directly to the Board, so the Board can obtain the benefit of their input.

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

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. 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. 56 Fed. Reg. 11387 (Mar. 18, 1991). USEPA stated that it would withdraw its policy revision as moot when it finally adopts such a definition of VOM as a regulation. 56 Fed. Reg. at 11388 & 11419.

The federal revision of its recommended policy raises an initial issue relating to whether the Board should proceed with adoption of the proposed rule pursuant to Section 9.1(e). As discussed in the Board's October 18, 1989 Opinion and Order in R89-8, the initial adoption of exemptions from the definition of VOM resulted from a specific legislative mandate. At that time, the legislative mandate arose out of a desire to include in Board rules the then-current list of chemicals exempted by USEPA under its recommended policy statements. The language of the authorizing legislation was open-ended, mandating future action in response to any future USEPA policy revisions:

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. In accordance with subsection (b) of Section 7.2, the Board shall adopt regulations identical in substance 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 by amending the list of exemptions to the Board's definition of volatile organic material found at 35 Ill. Adm. Code Part 211. . . . The Board may consolidate into a single rulemaking under this subsection all such federal policy statements published in the Federal Register within a period of time not to exceed 6 months.

Ill. Rev. Stat. 1989, ch. 111½, par. 1009.1(e).

USEPA effected the revision to its recommended policy statement and simultaneously proposed a general definition of "volatile organic compound" on the same date. See 56 Fed. Reg. 11387 & 11418 (Mar. 18, 1991). The proposed general definition would codify the substance of the recommended policy statement. In both the respective discussions of the policy revision and the proposed definition, USEPA stated that its intent is to withdraw the recommended policy statement as moot when it adopts the general definition.

Although withdrawal of the recommended policy after final adoption of the general definition would have no effect on the status of any of the exempted compounds in the federal scheme, the withdrawal raises several issues, including whether the Board should proceed with adoption of this rulemaking. The mandate of Section 9.1(e) pertains to the recommended federal policy, not to federal rules. If USEPA withdraws its policy statements as moot, must the Board then repeal the exemptions from the definition of volatile organic materials? Further, if USEPA should add or delete exempt compounds by future rulemakings, do those actions fall within the scope of the Section 9.1(e) mandate? If not, should the Board seek a revision in the language of Section 9.1(e)? If the Board should pursue a legislative amendment, what statutory language should it pursue? **The Board invites comment on these issues.**

USEPA effected part of the revision to its policy statement in response to a petition by the Alliance for Responsible CFC Policy. On January 18, 1989, at 54 Fed. Reg. 1987, USEPA partially responded to the petition by adding four non-fully-halogenated CFCs to the list of negligibly-reactive compounds. That was, in part, the subject of R89-8. The Alliance stated in justification of its petition that these CFC substitutes are less photochemically reactive than others already on USEPA's list of negligibly-reactive compounds and that USEPA must remove barriers to the use of CFC substitutes if the U.S. is to meet its commitments under the Montreal Protocol on Substances that Deplete the Ozone Layer.

Minnesota Mining and Manufacturing Co. (3M) submitted a petition to USEPA requesting addition of the four classes of compounds included as the other part of the policy statement revision. 3M also requested that USEPA take action to include these classes as part of the Chicago FIP and act to assure that they become part of any future SIP. 3M justified its petition by asserting that these classes of compounds are not photochemically reactive in the troposphere, that they do not deplete stratospheric ozone, that they are generally non-toxic to humans and the environment, and that they can act as useful CFC substitutes.

In effecting the revision, USEPA stated that only one compound (HCFC-124) had any chlorine or bromine atoms which contribute to stratospheric ozone depletion. USEPA agreed that there is a need to remove barriers to the use of acceptable CFC substitutes like those in the petitions. On this basis, USEPA revised its policy and exempted the five compounds and four classes of compounds. Therefore, USEPA's policy is not to enforce or approve controls on these compounds, and it "will rely on the revised policy in considering all future approvals or promulgations of implementation plan provisions" 56 Fed.

Reg. at 11419.

However, the USEPA policy revision raises other important issues for the Board. These relate to the balance between the Board's identical-in-substance mandate on the one hand and USEPA's expressly-reserved flexibility to deviate from the policy on a case-by-case basis on the other.

As noted below, USEPA is free to deviate from it and impose monitoring of emissions of the exempted compounds on a case-by-case basis, although USEPA has no present intent to do so. USEPA stated:

Of course, because this revised policy statement is not a binding regulation, EPA remains free at this time to depart from it in evaluating the merits of any particular rule regarding control of tropospheric ozone. However, because EPA believes that such case-by-case consideration is unnecessary, in the proposal being published today, EPA is also proposing to codify in [40 CFR 51] a general definition of VOC for all SIP development purposes that would exempt all of the compounds on the nonreactive list being revised by today's policy statement. Should EPA adopt that proposal as a final regulation, there would be no need to consider reactivity of the listed compounds on a case-by-case basis . . .

USEPA further stated:

[I]t is important to note that the proposed [40 CFR 51] general definition of VOC includes a provision that allows EPA or the State to require a source owner or operator, as a precondition to excluding negligibly-reactive compounds for purposes of determining compliance, to provide monitoring methods and/or monitoring results demonstrating to the satisfaction of EPA or the State, the amount of negligibly-reactive compounds in the source's emissions. . . . As discussed in the preamble to the proposed rule, the situations where such information may be needed typically involve emissions from streams where (1) VOC's and negligibly-reactive compounds are mixed together, or (2) there are a large number of negligibly-reactive compounds or the chemical composition of some of the negligibly-reactive compounds is not known.

56 Fed. Reg. at 11419-20.

A USEPA footnote on this section in the Federal Register states that "in any situation where a State allows a source to exclude

any of these negligibly-reactive compounds, EPA would retain independent authority to request a source to provide monitoring methods and/or monitoring results demonstrating, to the satisfaction of EPA, the amount of negligibly-reactive compounds in the source's emissions." 56 Fed. Reg. at 11419, note 1.

Proposed 40 CFR 51.100(s) states that volatile organic compounds include all compounds that participate in atmospheric photochemical reactions other than the several listed from the recommended policy statement. The definition goes on to state:

[A]n owner or operator may exclude these negligibly-reactive compounds when determining compliance with an emissions standard. However, [USEPA] or the State may require such owner or operator, as a precondition to excluding these compounds for purposes of determining compliance, to provide monitoring methods and monitoring results demonstrating . . . the amount of negligibly-reactive compounds in the source's emissions.

56 Fed. Reg. at 11390.

Thus, USEPA can require monitoring for exempted compounds as a permit condition despite the general exemption, and the states may reserve such authority in their rules.

This raises the issue as to whether it is desirable for the Board to include similar language in the text of its definition of volatile organic material at 35 Ill. Adm. Code 211.122. Illinois law requires the Board to codify its rules of general applicability. The Board risks appellate court invalidation of any policy the Agency attempts to apply without the formal process of codification. See 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). Therefore, application of any policy on a case-by-case basis might require codification under Illinois law. If such codification of this case-by-case reservation is desirable, does the identical-in-substance authority of Section 9.1(e) extend to adoption of such a reservation, whether based on the text of the recommended policy statement, see 56 Fed. Reg. at 11419-20, or on the text of the proposed federal rule when adopted?

The Board proposes language expressly reserving the Agency's prerogative to require monitoring under the conditions discussed by USEPA. The Board proposes incorporating this language in a new Section 215.108, among the general provisions of the Part of the Board's rules that regulates volatile organic emissions. The Board further incorporates into the proposed amendments to Section 211.122 a Board note that references Section 215.108 and the recommended policy statement (or, alternatively, 40 CFR

51.100(s) if this rule is adopted by USEPA) wherein USEPA reserves the right in itself to require monitoring of exempted compounds as a precondition to exemption.

In including an express authorization for the Agency to require monitoring for the exempted compounds among the general provisions of Part 215 for the purposes of public comment, the Board raises two issues relating to its identical-in-substance authority under Section 9.1(e). First, should the Board include the express USEPA reservations along with the general exemption that Section 9.1(e) requires the Board to adopt? Second, assuming the Board should include the express reservation, does Section 9.1(e) authorize the Board to adopt an amendment to Part 215 that would embody the USEPA reservations? Third, assuming the Board should include the express reservation, should that reservation take the form of the conditions outlined in USEPA's discussion of the situations in which it might require monitoring? The Board's approach in drafting this proposal for public comment was the use of limiting terms in Section 215.108, based on the USEPA discussion of the situations under which it might impose a requirement for monitoring. USEPA's discussion appears to use those situations as non-limiting examples, so other situations could cause USEPA to impose monitoring for the exempted compounds. Is there an alternative the Board could use in drafting this Section that would use non-limiting terms that are acceptable under Illinois administrative law? **The Board invites comment on these issues.**

In the interest of cleaning up the present text of the definition, the Board notes that the names of compounds listed in the present definition appear in alphabetical order with one exception: Dichloromethane. This compound is out of order because the Board amended the entry in R89-8 to use the IUPAC name for Methylene Chloride, the pre-existing entry. In the course of placing the instant five compounds in alphabetical order, the Board also places Dichloromethane in the proper order.

ORDER

The Board hereby proposes the following amendments to its definition of volatile organic material at 35 Ill. Adm. Code 211.122 and new section 35 Ill. Adm. Code 215.108:

Section 211.122 Definitions

. . .

"Volatile Organic Material" or "Volatile Organic Material Content (VOMC)": the emissions of volatile organic material which would result from the exposure of a coating, printing ink, fountain solution, tire spray, dry cleaning waste or other similar material to

the air, including any drying or curing, in the absence of any control equipment. VOMC is typically expressed as kilogram (kg) VOM/liter (lb VOM/gallon) of coating or coating solids, or kg VOM/kg (lb VOM/lb) of coating material.

Any organic material which participates in atmospheric photochemical reactions unless specifically exempted from this definition. Volatile organic material emissions shall be measured by the reference methods specified under 40 CFR 60, Appendix A (1986) (no future amendments or editions are included), or, if no reference method is applicable, may be determined by mass balance calculations.

For purposes of this definition, the following are not volatile organic materials:

Chlorodifluoroethane (HCFC-142b)
 Chlorodifluoromethane (CFC-22)
 Chloropentafluoroethane (CFC-115)
2-Chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
 Dichlorodifluoromethane (CFC-12)
 Dichlorofluoroethane (HCFC-141b)
Dichloromethane (Methylene chloride)
 Dichlorotetrafluoroethane (CFC-114)
 Dichlorotrifluoroethane (HCFC-123)
1,1-Difluoroethane (HFC-152a)
 Ethane
 Methane
~~Dichloromethane (Methylene chloride)~~
Pentafluoroethane (HFC-125)
 Tetrafluoroethane (HFC-134a)
1,1,2,2-Tetrafluoroethane (HFC-134)
 Trichloroethane (Methyl chloroform)
 Trichlorofluoromethane (CFC-11)
Trichlorotrifluoroethane (CFC-113)
 1,1,1-Trifluoroethane (HFC-143a)
 Trifluoromethane (FC-23)

and 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.

BOARD NOTE: USEPA or the Agency may require monitoring to demonstrate the amount of an exempted compound in a source's emissions on a case-by-case basis as a pre-condition to exemption of that compound under certain circumstances, such as where VOMs and exempted compounds are mixed together, there are a large number of exempted compounds, or the chemical composition of the exempted compounds is not known. See 35 Ill. Adm. Code 215.108; 56 Fed Reg. 11419-20.

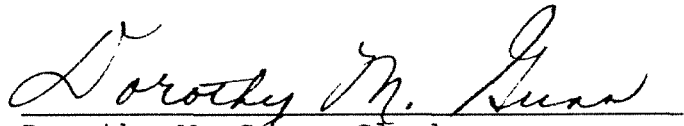
Section 215.108 Monitoring for Negligibly-Reactive Compounds

Any provision of Part 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, under any of the following circumstances:

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

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above Order was adopted on the 11th day of April, 1991, by a vote of 7-0.


Dorothy M. Gunn, Clerk
Illinois Pollution Control Board