ILLINOIS POLLUTION CONTROL BOARD
October 1, 1987

IN THE MATTER OF:	)	
	)	
VOLATILE ORGANIC MATERIAL	)	R82-14
EMISSIONS FROM STATIONARY	)	
SOURCES: RACT III	)	

PROPOSED RULE SECOND NOTICE

OPINION AND ORDER OF THE BOARD (by B. Forcade):

This matter comes before the Board on a series of proposed amendments to 35 Ill. Adm. Code Par 215, Organic Material Emission Standards and Limitations, for the control of the pollutant ozone. All of the proposed amendments address some aspect of the existing regulations controlling volatile organic material ("VOM") emissions from coating operations. Amendments to 35 Ill. Adm. Code 211.122, 215.204, 215.205 and 215.207 will be considered in the instant opinion and order. Merit hearings on the proposed amendments were held on December 2-3, 1985; March 20-21, 1986; August 4, 1986; August 7, 1987; September 3-4, 1986; October 30, 1986; and November 7, 1986. Hearings regarding the Economic Impact Statement (EcIS) for Sections 215.204 and 215.207 were held on May 8 and 21, 1987. Final merit evidence was also accepted at these hearings. The record closed on June 30, 1987.

On July 16, 1987, the Board proposed regulatory amendments to Section 211.122, 215.204, 215.205 and 215.207 for first notice comment which were published at 11 Ill. Reg. 12811 and 12835, August 7, 1987. The statutory 45-day comment period ended on September 21, 1987. The Board posed additional questions for the participants to comment on through a hearing officer order, dated August 27, 1987. Four substantive comments were received regarding the proposed amendments. Additionally, non-substantive comments were received from the Secretary of State's Administrative Code Unit regarding form and format of the proposed rules. Those changes have been made at second notice.

In a letter filed September 22, 1987, the Minnesota Mining & Manufacturing Company (3M) requested that the hearing officer extend the first notice comment period for the proposed amendments until October 10, 1987. The Agency filed a motion to deny 3M's request on September 29, 1987. The hearing officer referred this matter to the Board as it would impact the timing of the Board's decision in this matter. The Board denies 3M's request. First, the request is untimely, as the statutory 45-day comment period ended on September 21, 1987. Second, to allow 3M an additional opportunity to comment on not only the proposed amendments, but the Agency's timely filed comments as well, would

not be evenhanded or fair. Finally, the additional two to three weeks delay that granting 3M's request would cause is unacceptable to the Board. The Board is attempting to proceed with regulations controlling ozone precursors as quickly as fairness and the requirements of the Environmental Protection Act and the Administrative Procedures Act permit. The federal deadline for achievement of the National Ambient Air Quality Standard for Ozone is December 31, 1987. The Board and the Agency have expended considerable efforts to promulgate final rules by that date. Further delay in this proceeding could very well defeat that goal. The Board wishes to clarify that the instant Opinion and Order does not address the site-specific amendment proposed by 3M for its Bedford Park facility. Today's action addresses the proposed amendments to the rules of general applicability. The 3M site-specific is presently awaiting merit decision.

The first commenter raises two issues regarding certain language in the Opinion of July 16, 1987 (P.C. 115). First, the commenter asserts that the United States Environmental Protection Agency's (USEPA) position regarding defects in existing Section 215.207 is not as clear as the Board's opinion may lead one to believe. The commenter suggests that the existing rule was approved in 1980 by USEPA without condition. However, even the commenter concedes that subsequent action by USEPA, in the form of testimony in Board proceedings and formal comment on the State's RACT II package, does make USEPA's position clear. The Board concedes that the issue has been debated in the context of this proceeding as well as in variances and permit appeals. While the issue may not have been crystal clear in the early 1980's, it certainly is clear today. The record in the proceeding supports both the wisdom and necessity of modifying Section 215.207.

The commenter's second issue is whether or not compliance plans based on Section 215.207 need to be submitted to USEPA as State Implementation Plan (SIP) revisions under USEPA's "bubble policy" (P.C. 115). The Board, itself, was concerned with these issues and requested additional comments in the August 27, 1987, Hearing Officer Order. It is apparent from the record before the Board that USEPA's position has fluctuated wildly on this issue. The commenter accurately notes that USEPA's policy "has not been as clear as the opinion might be read to suggest." However, while this issue is obviously very important to facilities presently utilizing Section 215.207 to achieve compliance with RACT coating limitations, it is tangential to the issues presently before the Board in this proceeding. The Board is in the process of amending its regulations. The issue of how the rule will be implemented by other agencies of government may or may not come before this Board. If and when such issues are presented to the Board for adjudication, the wisdom and legality of the rules' implementation can be appropriately addressed.

The second commenter notes two typographical errors in the proposed amendments to Section 211.122, the definition of "Power Driven Fastener Coatings" (P.C. 116). First, in line 3 of the definition "0.254 inch" should read "0.0254 inch." Second, in line 14 of the definition "Counsel" should be "Council." These corrections have been made at second notice.

The third commenter responded to the questions posed in the August 27, 1987, Hearing Officer Order regarding the interpretation of the internal offset rule, Section 215.207, and the applicability of the USEPA federal bubble policy. The commenter utilizes existing Section 215.207 to achieve compliance with the RACT coating limitations. The proposed amendment to Section 215.207 will not impact the commenter's compliance status. However, the commenter is the subject of a USEPA enforcement action. The commenter's Section 215.207 compliance plan was never submitted as a SIP revision to USEPA. As previously noted, USEPA's position on the necessity of submittal of such permits as SIP revisions has been confusing and inconsistent. The commenter urges that the Board not take any action to revoke or qualify the protections available under Section 215.207 on which many companies have relied. The Board, by amending Section 215.207, does change the content of the rule. However, the principles, requirements and conditions embodied in the December 6, 1986, federal "bubble policy" are not expressly incorporated in the language of the amended rule. It may be argued that consistency with the federal "bubble policy" may be necessary to comply with federal law or policy. The Board, however, makes no such holding today.

The Illinois Environmental Protection Agency (Agency) filed comments responding to questions posed both in the July 16, 1987, first notice opinion and in the August 27, 1987, Hearing Officer Order (P.C. 119). The Agency also supplemented the record with various newspaper articles and documents regarding ozone attainment and the SIP process.

The Agency responds to the Board's request for justification of the proposed language in Section 215.207(a) that reads: "methods or procedures used to determine emission of VOM under this Section shall be approved by the Agency." First, the Agency responds that this language was copied from Section 215.205 for consistency and also because it has already been found acceptable by the Board for Section 215.205. Second, this language does not authorize the Agency to change existing test methods already adopted by the Board. Third, this language enables the Agency to review elements of compliance procedures not otherwise addressed by Board rules, and to formalize procedures to be followed or formalize Agency acceptance of procedures submitted by a company, in permit conditions. These procedures address items that the Agency must examine in the permitting process in order to determine the adequacy of the application and the compliance

status of the company, such as selected coating lines, calculation procedures, frequency of sampling, verification of control equipment efficiency, extent of material usage records, nature of documentation on coating VOM content, and availability of records. The nature of these procedures can vary greatly depending upon the particular circumstances of a company, e.g., the margin of compliance, the equipment present, and the nature of existing production records. Fourth, in the absence of prior review by the Agency in the permitting process, a company could believe that it was satisfying the requirements of Section 215.207. However, the Agency could consider the company not to be in compliance for failure to adequately address the requirements of Section 215.102, Section 215.207(a), Section 215.207(c), or Section 215.208. The Agency's proposed language protects a company by drawing attention to the fact that the methods and procedures must be presented to and approved by the Agency. The Agency reminds the Board that Agency determinations made in the permitting process are subject to appeal and review by the Board in a permit denial appeal.

The Board finds the Agency's justification persuasive. The implementation of Section 215.207 as a compliance option varies with each and every facility. Section 215.207 is intended to provide a flexible alternative to line-by-line compliance with the emission limitations of Section 215.204, with certain restrictions. Inherent in its approach is a requirement of flexibility in Agency review and implementation. It is not possible to write a coherent rule that envisions all contingencies and potential applications. Therefore, in the limited context of these rules, we believe that the "shall be approved by the Agency" language is appropriate and necessary.

Concerning the Board's request for clarification regarding the use of the language "selected coating lines" in proposed Section 215.207(a), the Agency responds that the selection of the coating lines is made by the permit applicant. The intended basis of the selection is for the company to demonstrate compliance with a minimum number of coating lines. The Board appreciates this clarification.

In the July 16, 1987, Opinion, the Board suggested certain modifications in Section 215.207 to the definitions of R_i, E_{ALL}, E_{ACT} and S_i. The Agency concurs with these suggested changes as they are consistent with the Agency's intent and help clarify the rule. These changes are made at second notice.

In response to questions posed in the August 27, 1987, Hearing Officer Order, the Agency states that 56 permits based on Section 215.207 have been issued. Of these, 46 are in ozone non-attainment areas and 10 are in attainment areas, including four in McHenry or Will County. The Agency has not submitted any of

the permits based on existing Section 215.207 to the USEPA as formal amendments or revisions to the Illinois SIP for ozone. The Agency contends that the proposed amendments to Section 215.207 are "pending" before USEPA.

Commenting generally about the language of Attachment 3 and the federal Emissions Trading Policy, the Agency reminds the Board that Section 215.207 was conditionally approved by USEPA in 1980. As an approved rule that is part of Illinois' SIP, any company can avail themselves of the regulation. The Agency's proposed Section 215.207 was sent to USEPA for parallel processing as a SIP revision on September 5, 1985. If the Agency's proposed Section 215.207 is adopted by the Board, USEPA should approve it since it corrects the flaw in the regulation (volumetric calculations) which has been identified by USEPA. Companies should continue to be able to avail themselves of this regulation in the future.

The Agency concedes that the amendments to Section 215.207 presently pending do not conform to the federal "bubble policy" of December 6, 1987. However, the Agency does not suggest that Section 215.207 be further modified at this time. The Agency contends that the amendments presently pending will correct a long-standing deficiency and will be responsive to USEPA's present concerns. The Agency suggests that Section 215.207 may, at some future time, need to be further modified to be consistent with federal policy. The Agency believes that the amendments to Section 215.207 pending before the Board will be approved by USEPA. If and when the Agency receives a SIP deficiency notice from USEPA regarding consistency with the federal "bubble policy", it will consider further amendment.

The Board believes that the Agency's suggested course of action is a prudent one under the circumstances. The Board notes that the federal "bubble policy" is relatively new and its incorporation or implementation in presently pending amendments to Section 215.207 is not presently at issue in this proceeding. The proposed amendments will help fulfill the state's obligations under the Clean Air Act and avoid federal sanctions. The Board will, therefore, direct the Clerk of the Board to submit the proposed amendments to Sections 211.122, 215.204, 215.205 and 215.207 for second notice review by the Joint Committee on Administrative Rules.

ORDER

The following amendments to 35 Ill. Adm. Code Parts 211 and 215 are directed to the Joint Committee on Administrative Rules for second notice review.

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 Incorporations by Reference
211.102 Abbreviations and Units

SUBPART B: DEFINITIONS

Section
211.121 Other Definitions
211.122 Definitions

Section 211.122 Definitions

"Power Driven Fastener Coating": The coating of nail, staple, brad and finish nail fasteners where such fasteners are fabricated from wire or rod of 0.0254 inch diameter or greater, where such fasteners are bonded into coils or strips, such coils and strips containing a number of such fasteners, which fasteners are manufactured for use in power tools, and which fasteners must conform with formal standards for specific uses established by various federal and national organizations including Federal Specification FF-N-105b of the General Services Administration, Bulletin UM-25d of the U.S. Department of Housing and Urban Development - Federal Housing Administration and the Model Building Code of the Council of American Building Officials, and similar standards. For the purposes of this definition, the terms "brad" and "finish nail" refer to single leg fasteners fabricated in the same manner as staples. The application of coatings to staple, brad, and finish nail fasteners may be associated with the incremental forming of such fasteners in a cyclic or repetitious manner (incremental fabrication) or with the forming of strips of such fasteners as a unit from a band of wires (unit fabrication).

"Specialty High Gloss Catalyzed Coating": commercial contract finishing of material prepared for printers and lithographers where the finishing process uses a solvent-borne coating, formulated with a catalyst, in a

quantity of no more than 12,000 gallons/year as supplied, where the coating machines are sheet fed and the coated sheets are brought to a minimum surface temperature of 190 F., and where the coated sheets are to achieve the minimum specular reflectance index of 65 measured at a 60 degree angle with a gloss meter.

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

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

PART 215
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

SUBPART F: COATING OPERATIONS

Section
215.202 Compliance Schedules
215.204 Emission Limitations for Manufacturing Plants
215.205 Alternative Emission Limitations
215.206 Exemptions from Emission Limitations
215.207 ~~Internal Offsets~~ Compliance by Aggregation of Emission Sources
215.208 Testing Methods for Solvent Content
215.209 Exemption from General Rule on Use of Organic Material
215.210 Alternative Compliance Schedule
215.211 Compliance Dates and Geographical Areas
215.212 Compliance Plan
215.213 Special Requirements for Compliance Plan

Section 215.204 Emission Limitations for Manufacturing Plants

No owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations on coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material pursuant to this Part, delivered to the coating applicator:

a) Automobile or Light Duty Truck Manufacturing Plants

	kg/l	lb/gal
1) In Cook County		
Prime coat	0.14	(1.2)
Prime surfacer coat	0.34	(2.8)

(Board Note: The prime surfacer coat limitation is based upon a transfer efficiency of 30 percent. The prime surfacer coat limitation shall not apply until December 31, 1982.)

Top coat	0.34	(2.8)

(Board Note: The limitation is based upon a transfer efficiency of 30 percent. The top coat limitation shall not apply until December 31, 1985.)

Final repair coat	0.58	(4.8)

(Board Note: The limitation shall not apply until December 31, 1985)

2) In Boone County

Prime Coat	0.14	(1.2)
Prime coat surfacer	0.34	(2.8)
Top coat	0.34	(2.8)

(Board Note: The top coat limitation shall not apply if by December 31, 1984, a limitation of 0.43 kg/l (3.6 lb/gal) is achieved and the top coat is applied with a transfer efficiency of not less than 55 percent and by December 31, 1986, the top coat is applied with a transfer efficiency of not less than 65 percent)

Final repair coat	0.58	(4.8)

3) In the remaining counties

Prime coat	0.14	(1.2)
Prime surfacer coat	0.34	(2.8)
Top coat	0.34	(2.8)
Final repair coat	0.58	(4.8)

b) Can Coating

1) Sheet basecoat and Overvarnish	0.34	(2.8)
2) Exterior basecoat and overvarnish	0.34	(2.8)
3) Interior body spray coat	0.51	(4.2)
4) Exterior end coat	0.51	(4.2)
5) Side seam spray coat	0.66	(5.5)

6)	End sealing compound coat	0.44	(3.7)

c) Paper Coating

1)	All paper coating except as provided in sub section (c)(2)	0.35	(2.9)
2)	Specialty High Gloss Catalyzed Coating	0.42	(3.5)

(Board Note: ~~The~~ These limitations shall not apply to equipment used for both printing and paper coating)

d)	Coil Coating	0.31	(2.6)
e)	Fabric Coating	0.35	(2.9)
f)	Vinyl Coating	0.45	(3.8)
g)	Metal Furniture Coating	0.36	(3.0)
h)	Large Appliance Coating	0.34	(2.8)

(Board Note: The limitation shall not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 liters (1 quart) in any one eight-hour period)

i)	Magnet Wire Coating	0.20	(1.7)
j)	Miscellaneous Metal Parts and Products Coating		
1)	Clear coating	0.52	(4.3)
2)	Air dries coating	0.42	(3.5)
3)	Extreme performance coating	0.42	(3.5)
4)	Power driven fastener coating		
A)	Nail coating	Refer to limits in (j)(1), (2), (3) and (5)	

B)	Staple, brad and finish nail unit fabrication bonding coating	0.64	(5.3)
C)	Staple, brad and finish nail incremental fabrication lubricity coating	0.64	(5.3)
D)	Staple, brad and finish nail incremental fabrication withdrawal resistance coating	0.60	(5.0)
E)	Staple, brad and finish nail unit fabri cation coating	0.64	(5.3)
45)	All other coatings	0.36	(3.0)

(Board Note: The least restrictive limitation shall apply if more than one limitation pertains to a specific coating)

k) Heavy Off-highway Vehicle Products

1)	Extreme performance prime coat	0.42	(3.5)
2)	Extreme performance top coat-air dried	0.52	(4.3)
3)	Final repair coat-air dried	0.58	(4.8)

l) Wood Furniture Coating

1)	Clear topcoat	0.67	(5.6)
2)	Opaque stain	0.56	(4.7)
3)	Pigmented coat	0.60	(5.0)
4)	Repair coat	0.67	(5.6)
5)	Sealer	0.67	(5.6)
6)	Semi-transparent stain	0.79	(6.6)

7) Wash coat 0.73 (6.1)

(Board Note: The repair coat has overall transfer efficiency of 30 percent; all others have an overall transfer efficiency of 65 percent.)

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

Section 215.205 Alternative Emission Limitations

Owners or operators of coating lines subject to Section 215.204 may comply with this Section, rather than with Section 215.204. The methods or procedures used to determine emissions of organic material under this sSection shall be approved by the Agency. Emissions of volatile organic material from sources subject to Section 215.204, are allowable, notwithstanding the limitations in Section 215.204, if ~~such emissions are controlled by one of the following methods:~~

a) For those sources subject to Section 215.204(b), the emissions are controlled by Aan afterburner system which provides: ~~, provided that 75 percent of the emissions from the coating line and 90 percent of the nonmethane volatile organic material (measured as total combustible carbon) which enters the afterburner are oxidized to carbon dioxide and water, or~~

1) 75% reduction in the overall emissions of volatile organic material from the coating line, and

2) Oxidation to carbon dioxide and water of 90% of the nonmethane volatile organic material (measured as total combustible carbon) which enters the afterburner.

b) For all other sources subject to Section 215.204, the emissions are controlled by an afterburner system which provides:

1) 81% reduction in the overall emissions of volatile organic material from the coating line, and

2) Oxidation to carbon dioxide and water of 90% of the nonmethane volatile organic material (measured as total combustible carbon) which enters the afterburner.

~~b~~c) ~~A~~ The system used to control such emissions is demonstrated to have control efficiency equivalent to or greater than that provided under the applicable provision of Section 215.204 or subsections (a) or (b) ~~as approved by the Agency~~.

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

Section 215.207 ~~Internal Offsets~~ Compliance by Aggregation of Emission Sources

a) ~~No person shall cause or allow the emission of volatile organic material from any coating line to exceed any limitation contained in Section 215.204 unless~~ Owners or operators of coating lines subject to Section 215.204 may comply with this Section rather than with Section 215.204. The methods or procedures used to determine emissions of volatile organic material under this Section shall be approved by the Agency. Emissions of volatile organic material from sources subject to Section 215.204 are allowable, notwithstanding the limitations in Section 215.204, if the combined actual emissions ~~rate~~ from ~~all~~ selected coating lines at the coating plant, but not including coating lines or other emission sources constructed or modified after July 1, 1979, is less than or equal to the combined allowable emissions ~~rate~~ as determined by the following equations:

$$E_{ALL} = \sum_{j=1}^{m} \sum_{i=1}^{n} (A_i B_i)_j$$

$$E_{ACT} = \sum_{j=1}^{m} \sum_{i=1}^{n} (C_i B_i (1 - D_i))_j$$

b) A_i shall be determined by the following formula:

$$A_i = \frac{R_i}{1 - \frac{R_i}{S_i}}$$

~~b~~c) As used in subsection (a), symbols mean the following:

E_{ALL} = the allowable volatile organic material emissions ~~rate~~ from the coating plant in ~~kilograms per day~~ kg/day (~~pounds per day~~ lb/day).

A_i = the allowable emission ~~rate~~ limit for ~~each~~ a coating pursuant to Section 215.204 expressed in kg/l (lbs/gal) of coating solids~~, excluding water, delivered to the coating applicator~~.

B_i = the volume of ~~each~~ coating solids in l/day (gal/day)~~, excluding water,~~ in a coating as delivered to the coating ~~applicator~~ line.

m = the number of coating lines included in the combined emission rate.

n = the number of ~~types of~~ different coatings delivered to ~~the~~ a coating ~~applicator~~ line.

E_{ACT} = the actual volatile organic material emissions ~~rate~~ from the coating plant in kg/day (lb/day)

C_i = the weight of volatile organic material per volume of ~~coating~~ solids in kg/l (lb/gal) for ~~each~~ a coating ~~applied~~.

D_i = the control efficiency by which emissions of volatile organic material from ~~the~~ a coating are reduced through the use of control equipment.

R_i = the applicable volatile organic material emission limit pursuant to Section 215.204, for a coating in kg/l (lb/gal).

S_i = the density of the volatile organic material in a coating in kg/l (lb/gal).

~~e~~d) The owner or operator of the coating plant shall maintain records of the density of the volatile organic material in each coating, the quantity and ~~solvent~~ volatile organic material and solids content of each coating applied and the line to which ~~it~~ coating is applied, in such a manner so as to ~~assure~~ demonstrate continuing compliance with the combined allowable emissions ~~rate~~.

~~d~~e) Except for emission sources subject to Sections 215.301 or 215.302, credits ~~for offsets~~ from emission sources at the coating plant that are subject to this Part, other than coating lines, may be given~~, but only~~ to the extent that ~~they represent reductions~~ emissions are reduced from the allowable emission limits for such emission sources contained in either this Part, or any existing operating permit, whichever limit is less.

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

IT IS SO ORDERED

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Proposed Rule, Second Notice Opinion and Order was adopted on the 1st day of October, 1987, by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board