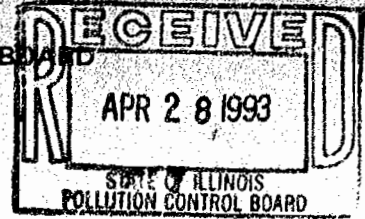


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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD



IN THE MATTER OF: )  
 )  
 OMNIBUS CLEANUP OF THE VOLATILE )  
 ORGANIC MATERIALS RACT RULES )  
 APPLICABLE TO OZONE NONATTAINMENT )  
 AREAS: AMENDMENTS TO 35 ILL. ADM. )  
 CODE PARTS 203, 211, 218 AND 219. )

R93-9  
(Rulemaking)

NOTICE

TO: Diane O'Neill, Hearing Officer  
 Illinois Pollution Control Board  
 State of Illinois Center  
 100 W. Randolph, Suite 11-500  
 Chicago, Illinois 60601

Dorothy Gunn, Clerk  
 Illinois Pollution Control Board  
 State of Illinois Center  
 100 W. Randolph, Suite 11-500  
 Chicago, Illinois 60601

SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Pollution Control Board the Testimony of Christopher Romaine of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

ENVIRONMENTAL PROTECTION AGENCY  
OF THE STATE OF ILLINOIS

By: Kathleen C. Bassi  
 Kathleen C. Bassi  
 Associate Counsel  
 Division of Legal Counsel

DATED: April 27, 1993  
Agency File #

P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/524-3333

**THIS FILING IS SUBMITTED  
ON RECYCLED PAPER**

STATE OF ILLINOIS        )  
  ) SS.  
COUNTY OF SANGAMON    )

PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached Testimony of Christopher Romaine upon the person to whom it is directed, by placing a copy in an envelope addressed to:

Diane O'Neill, Hearing Officer  
Illinois Pollution Control Board  
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100 W. Randolph, Suite 11-500  
Chicago, Illinois 60601

Dorothy Gunn, Clerk  
Illinois Pollution Control Board  
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(SEE ATTACHED SERVICE LIST)

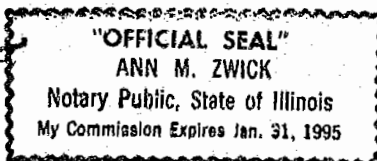
and mailing it by first class mail from Springfield, Illinois on April 27, 1993 with sufficient postage affixed.

Karen Commean

SUBSCRIBED AND SWORN TO BEFORE ME

this 27th day of April 1993

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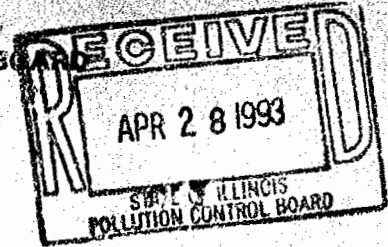
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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD



IN THE MATTER OF:

OMNIBUS CLEANUP OF THE VOLATILE  
ORGANIC MATERIALS RACT RULES  
APPLICABLE TO OZONE NONATTAINMENT  
AREAS: AMENDMENTS TO 35 ILL. ADM.  
CODE PARTS 203, 211, 218 AND 219.

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R93-9  
(Rulemaking)

Testimony of Christopher Romaine  
Illinois Environmental Protection Agency

Technical Support for Proposed Amendments  
to the VOM RACT Rules  
Applicable in Ozone Nonattainment Areas

April 1993



I. **INTRODUCTION**

My name is Christopher Romaine. I am testifying for the Illinois Environmental Protection Agency, by whom I am employed as Manager of the New Source Review Unit of the Permit Section of the Division of Air Pollution Control.

I have a Bachelor of Science Degree in Engineering from Brown University and have completed course work toward a Masters Degree in Environmental Engineering from Southern Illinois University. I am a Professional Engineer. I have worked for the Illinois Environmental Protection Agency (Agency) since June 1976.

As manager of the New Source Review Unit, I have programmatic responsibility for permitting activities related to certain federal or federally derived rules for new or modified sources. These rules including New Source Performance Standards (40 CFR Part 60), Prevention of Significant Deterioration of Air Quality (40CFR 52.21), and Major Stationary Sources Construction and Modification (35 Ill. Adm. Code Part 203). I assist permit analysts in their review of permit applications and examine their work. I am also responsible for coordination of Permit Section activities with respect to these programs with the USEPA and program development.

As part of my duties at the Agency, I assist in certain aspects of program development for the Division of Air Pollution Control. One of these is the development of regulations. I have been the Agency's technical expert in Board proceedings regarding with New Source Review rules: R81-16, R85-20, and R92-21. I have also participated in several regulatory proceedings dealing with the definition of volatile organic material (VOM) and control of VOM emissions, including R86-12, "Definition of Volatile Organic Material"; R91-10 and R91-24, "Exemptions from the Definition of VOM"; R86-18, "In the Matter of Amendments to 35 Ill. Adm. Code Part 215"; and R91-8, "RACT Deficiencies in the

**Metro-East Area: Amendments to 35 Ill. Adm. Code Part 215 and the Addition of Part 219."**

My testimony provides the technical support for the Agency proposal. The testimony includes an overview of the omnibus cleanup of the VOM RACT rules, explains the proposed amendments, and addresses the possible impact of the amendments.

**II. OVERVIEW**

**A. Background**

Section 182(a)(2) of the Clean Air Act ("CAA") requires Illinois to submit a revision to the State Implementation Plan ("SIP") that includes corrections to existing reasonably available control technology ("RACT") rules controlling emissions of VOM in ozone nonattainment areas. The Board adopted 35 Ill. Adm. Code Parts 218 and 219 in R91-7 and R91-8 to meet this requirement, and the rules were submitted to the United States Environmental Protection Agency ("USEPA") on September 9, 1991. The applicability of Part 218 was subsequently extended in R91-28 to include Oswego Township in Kendall County and Aux Sable and Goose Lake Townships in Grundy County so that Part 218 continues to apply to the entire Chicago ozone nonattainment area.

USEPA has found both Part 218 and 219 to be approvable contingent upon the State of Illinois making certain corrections. USEPA identified its concerns in a letter to the Agency dated May 8, 1992 from Stephen Rothblatt, USEPA Region V to Bharat Mathur, IEPA (See Exh. 1)\*. The Agency's proposal is intended to accomplish all the necessary corrections to respond to these concerns. The Agency anticipates publication by USEPA this summer of a notice of Proposed approval of these rules in the Federal Register, which indicates that final approval will be contingent upon making these corrections.

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\*References to Exhibits are to Exhibits in the Agency's proposal.

This proposal contains amendments addressing errors not identified by USEPA in its letter of May 8, 1992. Corrections in spelling, capitalization and form are proposed to satisfy the style requirements of the Index Division of the Secretary of State. Changes are also proposed by the Agency to consistently use the terminology of "source" and "emission unit" as now found in the Clean Air Act Permit Program ("CAAPP") legislation in Section 39.5 of the Environmental Protection Act (Act).

The Agency, USEPA, and affected sources have also identified certain errors and deficiencies in Parts 218 and 219 since they became effective in August 1991. Therefore, considering USEPA's requirement that Illinois have an approved RACT SIP as mandated by Section 182(a)(2) of the CAA and the other areas of correction and improvement which are necessary to the rules, the Agency proposes this "Omnibus Cleanup" of Parts 218 and 219.

This cleanup is necessary for USEPA to approve the VOM RACT rules in the ozone nonattainment areas as part of Illinois' SIP. To make the SIP submittal complete, it is necessary to include amendments to Part 203, which address the definition of VOM for permitting for the construction of new or modified major stationary sources within ozone nonattainment areas, and amendments to Part 211, which address definitions and general provisions which apply to Subtitle B, Chapter I, Subchapter c.

These additional corrections are so intricately interwoven into the substance of the proposal that for the Board to attempt to separate those revisions into a separate docket, as Section 28.5 allows, would make what is left of the proposal wholly incomplete and unapprovable. USEPA has reviewed the proposed amendments and agrees that the changes are needed to clean up the rules and clarify their meaning and effect. The USEPA has also generally found the proposed amendments to be approvable. Therefore, the Board can properly include consideration of all proposed changes within the purview of



Section 28.5, and the Agency has requested that it do so.

Until USEPA approves the VOM RACT rules, the FIP is the federally applicable RACT rules for the Cook DuPage, Kane, Lake, McHenry and Will Counties in the Chicago ozone nonattainment area. This means that the FIP is applicable at the federal level and the state rules are applicable at the state level. Once the VOM RACT rules at issue in this rulemaking are approved by USEPA, these rules will become the federally enforceable VOM RACT rules for Illinois' ozone nonattainment areas and will replace the FIP.

B. Federal Approval

The Agency and USEPA engaged in numerous telephone conversations and face to face discussions regarding Parts 218 and 219. On June 29, 1992, the Agency sent Region V a letter addressing the deficiencies and the Agency's proposed solutions (See Exh. 2). Subsequently, on October 8, 1992, the Agency sent Region V another letter updating the June 29 letter and describing this Agency's proposed solutions to address the identified deficiencies (See Exh. 3).

The USEPA has completed an informal review of the proposed rules. The USEPA has indicated that the proposed rules, comprised of both the corrections of deficiencies pointed out by the USEPA and the other corrections, are generally approvable. As will be discussed in more detail later, the USEPA is concerned with the language that appears in the Board Note located in the control requirements of the non-CTG generic rules. USEPA believes that the proposed language is unclear. We will continue to work with the USEPA on this language. The Agency anticipates that before Second Notice the USEPA will file comments with the Board that indicate that these proposed rules are approvable or provide language which the USEPA would find approvable.

C. Geographical Areas Affected

The Board rules in 35 Ill. Adm. Code Parts 218 and 219 contain standards and

limitations for emission of organic material and VOM from stationary sources in ozone nonattainment areas. The provisions of Part 218 apply to stationary sources located in Cook, DuPage, Kane, Lake, McHenry and Will Counties, and Oswego Township in Kendall County and Aux Sable and Goose Lake Townships in Grundy County. The provisions of Part 219 apply to stationary sources located in the Metro-East area consisting of Madison, Monroe and St. Clair Counties.

### III. DESCRIPTION OF PROPOSAL

As discussed above, approvable VOM RACT rules are required in the Chicago and Metro-East ozone nonattainment areas by Section 182(a)(2) of the CAA. The purpose of this rulemaking is a cleanup of Parts 218 and 219 and supporting provisions in Part 211 so as to allow USEPA to approve Parts 218 and 219 as a part of Illinois' SIP. A discussion of the various categories of changes being made follows. The discussion attempts to follow the order of Part 218/Part 219, first addressing changes to general provisions, and then changes to the individual subparts for particular categories of operations.

#### A. Style and Form

In terms of numbers, the majority of the proposed changes involve grammar, punctuation, choice of wording, and proper regulatory format. For example, the phrase "of this Part" has been added to internal regulatory references to comply with the Secretary of State's specifications for the form of administrative rules in Illinois. The appropriate citations have been added for USEPA's "Emissions Trading Policy Statement". For a Section-by-Section discussion of these changes, one should refer to the Agency's Statement of Reasons. The proposed changes are necessary to satisfy state requirements. The result is a consistent and clear set of rules which enhances their ability to be understood and implemented.

## B. Use of "Source" and "Emission Unit"

The use of the terms "facility," "emission source" and "plant" has been revised for consistency and clarity. The proposed terminology in Parts 218 and 219 parallels the terminology in the Clean Air Act Permit Program (CAAPP), as already found in the Board's rules in Part 203. An "emission unit" refers to a piece of equipment or specific activity, like a coating line or degreaser, that emits or has a potential to emit an air pollutant. (The term "air pollutant" is essentially synonymous with the term "air contaminant".) "Source" refers to the entire site or complex collectively comprised of all emission units at the particular site. As appropriate for a particular context, the terms "emission unit" and "source" are substituted for terms currently found in Part 218 and Part 219. For example, the term "emission unit" replaces the term "emission source" where it previously appeared in Subpart TT. For a Section-by-Section discussion of these changes, one may refer to the Agency's Statement of Reasons for the Omnibus Cleanup.

The intended meaning and effect of the rules is not changed as a result of the proposed change in terminology. To achieve this result, specific terms for regulated operations are used wherever possible. For example, the term "printing line" or "degreaser" is used where one of these operations is addressed, rather than using the general term "emission unit". In addition, the undefined and ambiguous term "facility" is not used except where the intended meaning appears obvious from its context and past experience and a suitable substitute for the term "facility" was not readily apparent.

This proposed change in terminology may result in some confusion as it means that the terminology in the air pollution control rules is in transition. The terminology which would result from the proposed amendments is illustrated in Figure 1. The long-term goal of the Agency is to clean up all the air pollution control rules to use the terminology of "source" and "emission unit" as now proposed for Parts 218 and 219.

This terminology is already present in Illinois' air pollution control program. It has been in the New Source Review rules, 35 Ill. Adm. Code Part 203, since 1988. It is reflected in the CAAPP enacted by adoption of Section 39.5 of the Act in 1992. It is believed that use of the terminology of the Clean Air Act will simplify future Illinois rulemaking to meet Clean Air Act requirements. In addition, Parts 218 and 219 must be revised in any case to correct inconsistencies in terminology incorporated from the FIP. For example, in Section 218.211 dealing with records for coating operations, the term "facility" is used apparently to refer both to an individual coating line which may or may not be subject to control requirements and to refer to the plant site at which records must be available for inspection.

C. Savings Clause:

Savings clauses have been added in Sections 218.101(a) and 219.101. The savings clauses preserve all compliance dates and compliance plan requirements found in Part 215. The purpose of these Sections is to ensure that persons previously required to comply with requirements of Part 215 are not released from those requirements as a result of the promulgation of 35 Ill. Adm. Code Parts 218 and 219. The inclusion of general saving clauses has been accompanied by removal of the specific provisions from Part 218 and Part 219, which repeated compliance provisions originally implemented in Part 215.

Language has also been added to Section 218.101 at subsection (b) to preserve all compliance dates and schedules found in the FIP.

These changes are necessary as they broadly preserve the integrity and effect of prior requirements. The proposed changes simplify Parts 218 and 219, as "savings provisions," which had been repeated in certain areas of Parts 218 and 219, are now consolidated into a general provision applicable to all of Parts 218 and 219. The need for these corrections was identified by USEPA in its letter of May 8, 1992.

D. Applicability

Additional language in Section 218.103(a) addresses the effectiveness of Part 218 to the FIP appellants who appealed the FIP when it was promulgated. A Board Note has been added to subsection (b) which states that Section 218.103(b) will be effective at the federal level only upon approval by USEPA. Section 218.103(b) addresses applicability of Part 218 to operations with state-adjusted standards.

E. Maximum Theoretical Emissions (MTE)

Applicability of RACT rules for certain categories of operations is based on "maximum theoretical emissions" if emissions are not otherwise limited through production or capacity limitations which are federally enforceable. In general terms, the "maximum theoretical emissions" or MTE are the greatest emissions which could theoretically be emitted by a unit assuming continuous operation at the maximum hourly rate without any control equipment.

Definition of Maximum Theoretical Emissions - In its letter of May 8, 1992, and in subsequent discussions with the Agency, USEPA has identified certain deficiencies in the current definition of "Maximum Theoretical Emissions." The Agency's proposal corrects these deficiencies.

First, the definition of "rolling limit" has been integrated into the definition of MTE. USEPA noted that the present definition of rolling limit is not a general definition of rolling limit but a narrow usage of the term specifically for purposes of the definition of MTE. Accordingly, it is better for the definition of rolling limit to be incorporated into the definition of MTE and eliminated as a separate definition.

Second, the definition of MTE no longer provides for emission limitations to restrict MTE. USEPA also observed that the current definition of MTE allows for emission limitations to be used to constrain MTE. This is not consistent with USEPA's guidance for



existing RACT rules. Compliance with this guidance is required by Section 182(a)(2)(A) of the Clean Air Act, as amended in 1990. This guidance provides for MTE to be constrained only by limits on production and capacity. Even though the definition of MTE will no longer contemplate use of emission limitations to restrict MTE, the Agency plans to continue to include limits on emissions in permits, including limits on annual emissions, as such limits expressed in terms of emissions reinforce and clarify the effect of the limitations on capacity and production.

Federally Enforceable State Operating Permits (FESOP) - The proposed amendments recognize that federally enforceable state operating permits can be used to establish federally enforceable limitations. The USEPA has approved Illinois' operating permit program as part of Illinois' implementation plan at 40 CFR 52.737 (57 Federal Register 59928, December 17, 1992).

F. Definition of Volatile Organic Material (VOM):

A definition of VOM was adopted by the Board on July 30, 1991, in docket R91-24. Although the Board adopted the definition of VOM in docket R91-24 pursuant to Section 9.1(e) of the Act as an identical in substance rule, the rule does not parallel the federal rule and is not approvable. (See letter from USEPA dated January 14, 1993). The definition of VOM is one of the areas that must be corrected.

Further, this proposal places the definition of VOM in Part 211 and removes it from all other Parts in Subtitle B. Therefore, in the future, when the Board must amend the definition of VOM pursuant to Section 9.1(e) of the Act, it can do so within the parameters set by the Act and not have to grapple with the interpretation of the letter and the intent of the statute.

Because of the necessity of an approvable definition of VOM to Illinois' New Source Review rules found at Part 203, the entire federal definition of VOM has already been

included in Section 203.145 in the New Source Review proposal (R92-21). This proposal repeals the definition of VOM in the New Source Review rules, as a USEPA approvable definition of VOM is now proposed for 35 Ill. Adm. Code Part 211.

G. Cleanup of General Provisions

Consolidation of Definitions - The Agency proposes to move all definitions contained in Parts 218 and 219 to Part 211. Part 211 contains General Provisions and applies to Parts 212, 214, 215, 216, 217, 218, and 219. Consolidation of definitions in one area results in more efficient rules.

In anticipation of future cleanup of Part 215, the Agency has also proposed to include definitions for a handful of unique terms in Part 211 from Section 215.104. However, Section 215.104 itself is not being revised. These terms are "conventional soybean crushing source", "ethanol blend gasoline", "light oil", and specialty soybean crushing".

The Agency also proposes reorganizing Part 211 so that each definition has its own section number. As a result, future adoption of new definitions and amendments to specific definitions, such as the definition of VOM, will require addressing only the applicable definitions in any given rulemaking. Only those definitions addressed will need be submitted to the Board, published in Orders and submitted to USEPA. It is believed that this reorganization will facilitate more efficient rulemakings in the future as related to definitions. It will certainly reduce the amount of paper used in printing both draft and adopted rules.

Consolidation of Abbreviations and Units - The listings of abbreviations and units previously contained in Parts 218 and 219, are also proposed to be incorporated in the listings present in Part 211.

In this action, one correction is made to the term "ton". To avoid confusion, a

"ton" is now identified as a "short ton" or 2,000 pounds, and not an "English ton".

Content of Definitions - The Agency has amended the content of certain definitions as previously found in Parts 218 and Part 219, including Sections 218.104, 218.521, 219.104 and 219.521. For the convenience of the Board, the Agency has provided in this packet a version of Section 218.104 which generally reflects changes made before the definitions were moved to Part 211 (See Exh. 5). This document is also applicable for Section 219.104.

The goal of the proposed revisions is to develop a single set of definitions for purposes of the organic material rules, which provides technically sound and internally consistent definitions of relevant terms. This will simplify implementation of the current rules as well as providing a solid foundation for the further rules which will have to be adopted to satisfy the Clean Air Act.

The proposed revisions correct a variety of deficiencies in the definitions. Some of these deficiencies have been uncovered while working with these terms for the last one and a half years, particularly by some of our newer staff who do not know what the definitions should mean. For example, the present definition of "miscellaneous metal parts and products coatings" does not exclude "architectural coatings", although architectural coatings which are applied on-site have never been considered in practice to be miscellaneous metal parts. Other proposed revisions are a direct result of the decision to consolidate in Part 211, the relevant definitions related to Board emissions standards (Subchapter c of Chapter I of Subtitle A of Title 35). Still others are a result of further examination of definitions by USEPA.

The principle types of corrections that are attempted are listed below. All corrections are discussed in more detail in the Addendum to this testimony. One of the

resources used in clarifying definitions was USEPA's "Model RACT Rules" for VOM emissions.

- Usage of the terms "source" and "emission unit" in a manner consistent with the CAAPP, but also accommodating the use of the term "emission source" as found in Parts 201, 212, 214, 215, 216, 217 and elsewhere ;
- Elimination of the ambiguous term "facility" as a corollary to the above;
- Clarification of terminology used for coating operations;
- Clarification of terminology used for printing operations;
- Elimination of unneeded definitions, including definitions of terms which conflict with the actual meanings of the terms in context;
- Revisions related to a focus on VOM emissions for terms which can also apply for other contaminants;
- Specification of applicable context for terms which are defined for a narrow purpose;
- Revision of definitions for consistent usage of subsidiary terms, e.g., "component" as equipment which may leak VOM (defined meaning) and "component" as a constituent part (usage in certain contexts); and
- Significant clarification of existing definitions.

Included in these amendments is the proposed deletion from Part 211 of three terms which are no longer necessary. These terms are "fuel gas system", "ppm(vol)", and "process".

#### H. Storage Tanks

Use of Submerged Fill - The current rules require use of a "submerged loading pipe", "submerged fill", or an equivalent method for loading certain storage tanks (Section 218.122 and 219.122). The term "submerged fill" is proposed to be deleted because it is not defined, and the term "submerged loading pipe" is defined broadly enough to cover what has been traditionally distinguished as "submerged fill".

Equivalent Equipment for External Floating Roof Tanks - The current rules allow the Agency to approve the use of an equivalent device in place of the continuous rim mounted secondary seal required on certain external floating roof tanks, (Section 218.124(a) and 219.124(a)). The rules fail to require appropriate procedures for Agency and USEPA review and approval, as has been done in other places where the Agency is able to approve

equivalent means of control. For an example, refer to Section 218.122(b) and 219.122(b), as mentioned above. This oversight is proposed for correction using language similar to that used elsewhere. This language requires Agency approval of the equivalent equipment in a permit pursuant to 35 Ill. Adm. Code Part 201 and USEPA approval as a revision to Illinois' implementation plan.

Measurement of Seal Gaps for External Floating Roof Tanks - The USEPA found that the provisions for external floating roof storage tanks in Sections 218.124 and 219.124 did not adequately specify the procedures to be used to determine compliance. The RACT requirement for external floating roof storage tanks establishes a limit on the accumulated area of the gap between the floating roof and the wall of the tank. The proposed amendments further clarify how this determination is to be made. USEPA considers enforceability of rules when approving them. The ability of environmental authorities to enforce control requirements through well-defined and appropriate testing, monitoring, recordkeeping, and reporting provisions is essential for USEPA approval of rules as part of a SIP.

I. Degreasers

The provisions for degreasers in Subpart E are proposed to be amended to clarify that the provisions apply only to degreasers with VOM emissions. As the purpose of Subpart E is control of VOM as it is a precursor to the formation of ozone in the atmosphere, it is not necessary to apply Subpart E to degreasers which use solvent which is not a VOM. The proposed change is accomplished by adding the words "which use volatile organic materials" in the introductory provisions for degreasers in Sections 218.181 and 219.181.

J. Coating Operations

Coating of Metal Pails and Drums - The coating of steel pails and drums is an



activity subject to the RACT rules for coating of miscellaneous metal parts and products. It has been a long-standing practice by both the Agency and USEPA to treat the coatings used on the interior of a steel pail or drum as a "clear coating". These interior coatings must protect the steel container from the contents of the container, providing a barrier of sufficient chemical resistance for the particular service. While many of these coatings contain no pigment and may qualify as clear coatings, others contain small amounts of dye or pigment to show where they have been applied.

The proposed amendment clarifies the coating rules to assure consistent treatment of such coatings. This is done by specifically identifying interior coatings on steel pails or drums as a type of coating operation in Sections 218.204(j) and 219.204(j) and providing an emission limit of 4.3 lb/gallon, the limit also applicable to clear coatings. Supporting definitions of drum and pail are also proposed.

Coating of Wood Furniture - The RACT rule for coating of wood furniture addresses the transfer efficiency with which such coatings are applied by specifying that coatings must be applied by certain methods. The rules for wood furniture coating, Sections 218.204(l) and 219.204(l), have been amended to allow for the use of high volume low pressure (HVLP) coating application systems. HVLP systems have levels of transfer efficiency comparable to the methods of coating application presently listed as acceptable for wood furniture coating. HVLP systems have been found acceptable by other jurisdictions including Los Angeles. A supporting definition of high volume low pressure system has also been added in Part 211.

K. Automobile and Light-Duty Truck Coating (Ford Motor Company)

The proposed amendments establish a limit for primer surfacer operations in automobile and light-duty truck manufacturing expressed in terms of the mass of VOM emissions per volume of coating solids applied to a substrate, i.e., lb VOM/gallon of

applied solids (Section 218.204(a) and 219.204(a)). A limit of this type considers the transfer efficiency with which coating is applied to a substrate. The particular emission limit, 15.1 lb VOM/gallon of applied solids, is derived from the existing limit, 2.8 lb VOM/gallon, using a transfer efficiency of 30%.

Appropriate language is also proposed to require use of USEPA's topcoat protocol by primer surfacer operations to demonstrate compliance with this limit. The use of this USEPA protocol is currently restricted to the topcoat itself. Monitoring, recordkeeping and reporting for both topcoat and primer surfacer operations have been revised to assure that compliance can be verified (Section 218.105(d)(2) and Section 218.211(f)). With respect to monitoring, one aspect of these revisions is specific identification of the monitored control device operating conditions which must be individually reported as exceedances. Because of the specialized nature of the required recordkeeping, recordkeeping has relocated into a dedicated subsection. One new term has also been defined, e.g. "application area", and two existing definitions have been revised to support the proposed change. These changes have been made to allow the revised rules to be approved by USEPA.

The only existing source affected by this change is Ford Motor Company. In AS 91-2, Ford obtained an Adjusted Standard from 35 Ill. Adm. Code 215.204 which established this type of limit for its primer surfacer operation. This Adjusted Standard has not been approved by USEPA as a revision to Illinois' Implementation Plan. The changes now proposed to Parts 218 and 219 would establish this type of limit as a general matter and is approvable by USEPA.

L. Cleaning Solvents at Printing Plants

USEPA considers that VOM emissions from clean-up operations, (that is, use of VOM solvent to clean printing presses, the printing area, and personnel) must be

considered in determining whether printing emissions qualify for RACT control. The RACT applicability determination for printing essentially looks at whether an entire source engaged in printing is major. The current language on VOM emissions from cleanup is contained in Sections 218.101 and 219.101 "Cleanup and Disposal Operation." It is not considered adequate to insure that VOM emissions from cleanup from printing operations are properly handled. In particular, VOM emissions from cleanup of coating operation, also addressed by these Sections, need not and in fact has not been considered in RACT applicability determinations. To assure that cleanup emissions are properly treated for the printing industry, explicit provisions addressing cleanup emissions must be added to Subpart H.

In the proposed amendments, for purposes of applicability of the printing rules in Sections 218.404, 219.404, 218.405, and 219.405, formulae for VOM emissions calculations have been revised to address emissions from cleanup operations. In addition, language including emissions from cleanup operations has been added to the applicability sections for flexographic and rotogravure printing (Section 218.402(a)(1) and 219.402(a)(1)). The ambiguous language in Sections 218.101 and 219.101 concerning "Cleanup and Disposal Operation", has been deleted. (It was replaced with the Saving Clauses, as already discussed in Section III. C. of this Testimony.)

M. Solvent Recovery Systems (R.R. Donnelley)

Various revisions to the rules are proposed to incorporate the outcome of settlement discussions between R.R. Donnelley and USEPA over the provisions of the FIP. In particular, R.R. Donnelley, in conjunction with the Printing Industry of Illinois-Indiana, appealed the FIP claiming that certain provisions applicable to solvent recovery systems were not justified. USEPA agreed to reconsider these provisions of the FIP. Subsequent discussions between USEPA and R.R. Donnelley resulted in revised language for the

particular provisions, which would settle the appeal. The Agency formally received this language from USEPA (See Exh. 13). The Agency now proposes to incorporate the revised language in the State rules, including Section 218.105(c)(1)(B) and (d)(3), which in effect reflects a change made by USEPA to the FIP.

The revised language generally accepts a mass balance on a 7-day rolling basis to demonstrate overall VOM control efficiency of a solvent recovery system, rather than the daily mass balance currently required. This period may be extended to up to 30 days on a site-specific basis, with the approval of the Agency and USEPA. The revised language further provides for a 14 day rolling basis in the case of the existing carbon adsorption solvent recovery system for R.R. Donnelley's rotogravure printing plant on East 22nd Street in Chicago.

With respect to continuous monitoring, the revised language clarifies that for a carbon adsorption system with multiple carbon beds, simultaneous measurements of VOM concentration of the exhaust of each bed are not mandatory, but that the exhaust of the bed next in sequence to be desorbed must be monitored. In addition, operation of printing presses with solvent recovery systems may legally continue during malfunction of the monitoring equipment on the solvent recovery system provided that certain conditions are met. It is the Agency's understanding that in the context of these settlement discussions, the USEPA was able to develop a specific approach to malfunctions of monitoring equipment on carbon adsorbers used on flexographic and rotogravure printing operations such as the system operated by R.R. Donnelley. Because the performance of these carbon adsorbers may be generally verified by mass balance, the USEPA has found that the associated monitoring devices need not operate at all times provided that certain other requirements are met. These other requirements include timely notification of monitoring device malfunctions, alternative operating practices which do not rely on monitoring device

data and a limit on the total duration of malfunctions.

N. SOCMI Leaks

The current control requirements in the synthetic organic chemical and polymer manufacturing industry ("SOCMI") rules in Subpart Q have been found generally approvable by USEPA. However, the rules have been found to be deficient by USEPA as they do not contain appropriate recordkeeping and reporting requirements for emission control devices associated with sampling connections. The provisions dealing with emission control devices associated with sampling connections were added to Subpart Q in R88-12, effective June 27, 1989, and were not addressed by USEPA when it adopted the FIP. The necessary amendments are proposed to correct the deficiency.

The proposed corrections are derived from the USEPA's "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry", 40 CFR 60, Subpart VV. The proposed corrections do entail some reorganization of the substantive provisions, so that use of a closed container to transfer purged material is a required work practice but does not constitute, per se, a control device. Control devices are now limited to units where purged material is actually destroyed, such as flares, boilers and incinerators. The proposed corrections also recognize that separate monitoring of such control devices for purposes of RACT and control of VOM emissions is not needed where such devices are subject to operational monitoring under regulations for waste disposal pursuant to the federal Resource Conservation Recovery Act.

O. Gasoline Distribution

The proposed amendments revise the limits on vapor pressure, as presently found in Sections 218.585 and 219.585 dealing with the acceptable vapor pressure of gasoline. The state limit is proposed to be lowered to be consistent with the federal limit on such vapor pressure set by USEPA.



P. Corrections to Non-CTG Rules

A control technique guidance ("CTG") document is a guidance document issued by USEPA designed to assist states in defining RACT for specific categories of operation. As a result, the corresponding RACT rules for these categories developed by states are termed CTG rules. States must also have RACT rules for "major sources" in ozone nonattainment areas which are not covered by CTG rules. These other rules are termed non-CTG rules.

Listing of CTG Rules in Non-CTG Rules - The applicability of many of the current non-CTG rules considers the maximum theoretical emissions of operations at a source which are not controlled by CTG rules. In order to make this determination, the applicability provisions of each of these non-CTG rules include a list identifying CTG rules. The current list is not complete. Emission units subject to Subparts T, but not Sections 218.486 or 219.486, and Subpart BB (pharmaceutical manufacturing and polystyrene plants respectively) have been added to the listing of CTG rules in Sections 218.620(a), 218.920(a), 218.940(a), 218.960(a), 218.980(a), 219.620(a), 219.920(a), 219.940(a), 219.960(a), and 219.980(a). In addition, pharmaceutical manufacturing need no longer be included in the list of exemptions in Section 218.960(e) and 219.960(e) because it is included in the list of CTG rules. Subparts T and BB contain specific RACT rules, which are based on CTG documents developed by USEPA and, therefore, should have already been included in the listing of CTG rules in the above Sections.

Meaning of Phrase "Regulated by a Rule" - As stated above, the applicability of many of the current non-CTG rules considers the maximum theoretical emissions of the operations at a source which are not "controlled by" or "regulated by" CTG rules. For this purpose, an operation is considered controlled or regulated only if a CTG rule actually restricts VOM emissions.

Operations which qualify for exclusions of a CTG rule or are below the applicability

criteria or otherwise avoid control requirements are not considered "regulated". The emissions from these not regulated units, also referred to as "sub-threshold units" do count for applicability of non-CTG rules. These sub-threshold units are not subject to control requirements of the non-CTG rule, only increasing the accountable emissions which may trigger actual control requirements for non-CTG operations. In common Agency usage, these sub-threshold units are "in for the count, out for control", unlike the non-CTG units themselves which are "in for the count and in for control".

The proposed amendments clarify the relevant provisions of the non-CTG rules which explain what "not regulated by" means. These provisions are contained in Sections 218.920(e), 218.940(e), 218.960(e), 218.980(e), 219.920(e), 219.940(e), 219.960(e), and 219.980(e).

Control Requirements for Non-CTG Generic Rules - Illinois' non-CTG RACT rules for "Miscellaneous Fabricated Product Manufacturing Processes", "Miscellaneous Formulation Manufacturing Processes", "Miscellaneous Organic Chemical Manufacturing Processes" and "Other Emission Units" are further described as Illinois' generic RACT rules. These non-CTG rules are generic as they address in general terms broad groups of operations. (Illinois' rules for "Paint and Ink Manufacturing Plants" are sometimes included as a generic rule. This is because of the timing of its adoption. However, the paint and ink rules are not appropriately considered "generic" because they set requirements for a specific category of operation.

The words "from each emission unit" and a Board Note have been added to Sections 218.926(a), 218.946(a), 218.966(a) and 218.986(a) 219.926(a), 219.946(a), 219.966(a) and 219.986(a) in the non-CTG generic rules to clarify how the add-on control requirement in these generic rules is to apply. USEPA has expressed great concern over these provisions. It is the one area of the proposal where USEPA has been unwilling to

state that the proposed amendments are approvable. The Agency believes that the proposed amendments are approvable and hopes that USEPA will agree with us following further evaluation. We are trying to show USEPA that the proposed Note appropriately addresses the inherent challenge in preparing generic RACT rules.

In generic RACT rules, the particular operations being subjected to control requirements can not be identified to the same level of detail as in categorical RACT rules. It is not possible to narrowly use specific terms for the regulated operations, such as "coating line" or "storage tank," as is possible in a categorical rule. Nevertheless, it is essential to provide as much guidance in generic rules as possible to identify the regulated operations. This is particularly true where the rule requires a control device to be installed that reduces the VOM emissions from an individually regulated operation by at least 81%. Specificity is needed to assure that rules achieve their desired objective, i.e., use of RACT with a minimum of disputes and misunderstandings between the regulated individuals and the regulators.

This challenge posed by the generic rules is one that must be addressed in the Omnibus Cleanup irrespective of the adoption of Clean Air Act terminology, i.e., switching from the term "emission source" to "emission unit." The FIP certainly does not solve the challenge by using the term "emission source" and defining it as a "facility." In many respects and in common practice, the terms "emission source" and "emission unit" are interchangeable. Both terms, in the absence of other supporting language, could be considered to cover a range of operations. For example, at a printing plant, an emission unit could be considered a single ink reservoir, a printing station, a single printing press, or a number of presses served by a common control. Of course, in day-to-day practice, identifiable pieces of equipment have been considered emission sources, that is, a single printing press.

In the Omnibus Cleanup rulemaking, the Agency proposes supporting language in the generic rules to refine the meaning of the term "emission unit." It specifies how the term "emission unit" is to be applied relative to the scope of the operation subject to VOM control requirements. The goal is to provide the greatest degree of specificity possible. This is accomplished in the proposed Board note by relying on the entirety of Illinois categorical RACT rules and the USEPA's NSPS rules to identify types of operations that may individually be subject to the requirement for add-on VOM control. These rules already identify a number of types of operations that are fully appropriate for add-on control required on an individual basis. These rules are the outcome of proceedings in which the scope of operations suitable for applying add-on control requirements was specifically considered. The proposed note includes examples of the specific types of operations identified by these existing categorical RACT rules to further clarify the types of operations subject to control under Illinois' generic rules. The examples include the types of operations that are expected to be most commonly affected by the generic rules, including coating lines, printing lines and process units. These examples also make clear that the terms describing operations are used in a broader sense than one might otherwise presume. For example, a "coating line" is a type of operation that may be subject to individual control under a generic rule, as distinguished from a particular type and category of operation, like a "glass coating line."

The above approach is not entirely inclusive, as there are certain types of operations that are suitable for individual control that have not been addressed by Illinois' categorical RACT rules or the USEPA's NSPS. The above approach minimizes the number of these "other types of operations" by incorporating all available VOM regulations, i.e. the categorical RACT rules and Illinois' NSPS, as relevant guidance for the generic rules. For

these other types of operations, the proposed rule perpetuates the general definition of an "emission unit" under the Clean Air Act. This general definition for "emission unit" is "any part or activity at a source." This language in its context is fully adequate for dealing with other types of operations. The language allows for necessary flexibility in dealing with types of operations that have not been addressed by a detailed rulemaking proceeding. Certainly there will be individual operations like ink reservoirs where an individual add-on control requirement is not appropriate. On the other hand, a control requirement applied to an entire plant could forego control of individual equipment where it would be appropriate.

Due to the nature of the generic rules, it is unavoidable that the determination of the scope of other types of operations subject to individual control will have to be determined on a case-by-case basis. The permit program established by Title V of the Clean Air Act Amendments provides the mechanism by which these case-by-case determinations will have to be made. These permits will be required of all sources subject to the generic rules. These permits will have to include enforceable conditions clearly defining applicable control requirements, and the permits including these conditions are subject to USEPA review and objection prior to issuance.

**Q. Exemptions for Polystyrene Foam Insulation Board and Polystyrene Foam Packaging**

Certain categories of operations which are excluded from the control requirements of the various non-CTG generic rules are listed in Sections 218.980(e) and 219.980(e) of the non-CTG generic rule for "other operations" Subpart TT. The exemptions provided for polystyrene foam insulation board and polystyrene foam packaging have been amended to assure that the correct processes are being exempted. The current exemptions inadequately address "expandable polystyrene". Expandable polystyrene is supplied to a manufacturing plant with the blowing agent already incorporated into the polystyrene resin



by the producer of the resin. Manufacturing operations using expandable polystyrene were not addressed in Board proceeding R86-18 which was the foundation for the generic rule for "other operations". It is unclear that in developing the FIP, the USEPA intended to exempt expandable polystyrene foam operations from the generic control requirement for "other operations". The VOM emissions resulting from blending and preliminary expansion of expandable resin prior to molding are controllable based on measures implemented at two such plants in Illinois, Dart and Handi-Kup. Therefore, these processes should not be exempt from the VOM control requirements. The Agency's amendments revise the exemption to the proper processes.

The current provision establishes exemption for, among other categories, the "production of polystyrene foam packaging (not including storage and extrusion of scrap where blowing agent is added to the polystyrene resin at the plant)". As stated above, investigation of the industry which employs expandable polystyrene as its basic material indicated that VOM emissions from certain operations within the expandable polystyrene manufacturing process are capable of control at reasonable costs.

For this reason, the Agency is proposing to alter the current exemption to require controls for "blending and preliminary expansion of resin prior to molding", since these are operations in expandable polystyrene manufacturing for which emissions may reasonably be controlled. This phrase is intended to include only those operations within an expandable polystyrene process in which "blending" -- considered to include the mixing of expandable polystyrene beads to achieve a homogeneous supply with the possible addition of a powdered nucleating agent, such as zinc stearate -- and "preliminary expansion prior to molding" -- considered to include the operation within a pre-expander in which blended beads are subjected to heat to cause bead expansion -- are performed. All other

operations involved in production of expandable polystyrene foam packaging continue to be exempted from VOM control requirements.

The narrowed exemption is intended to be consistent with developments of control measures at two facilities: Handi-kup and Dart. The Handi-Kup plant, located in West Chicago, has already controlled both blending and preliminary expansion operations. These operations are performed in an area which is totally enclosed, and VOM-laden air from the area is ducted to the facility's boilers for combustion. Dart, located in North Aurora, is involved in an Adjusted Standard Proceeding (AS91-16) which would require enclosure and control of blenders and pre-expanders. Under the narrowed exemption, the enclosed areas will be subject to the requirements of Subpart TT, while the remainder of the expandable polystyrene operations continue to be exempted from VOM control requirements.

R. Exemption for Vegetable Oil Processing Plants

Vegetable oil processing plants are also listed in Section 218.980(e) and 219.980(e) as a category of operation which is excluded from the control requirements of the various non-CTG generic rules. This exemption was intended to exempt operations at CPC - Corn Products in Bedford Park, based on comments to USEPA from CPC on the proposed content of the FIP. The activity engaged in by CPC which emits VOM is the extraction of corn oil from corn and not the subsequent processing of the oil at the plant.

The proposed amendments clarify that "vegetable oil extraction and processing" are exempt. An incidental benefit is that a source engaged solely in processing of vegetable oil would be subject to VOM control requirements if the VOM emission met applicability criteria. The Agency is aware of one such plant, Van Den Bergh Foods in Joliet, but VOM emissions appear well below the 100 ton/year emission applicability level.

S. Non-contact Process Water Cooling Towers

Non-contact process water cooling towers have been identified as operations which may emit VOM at levels which result in applicability of the generic control requirements of Subpart TT. These VOM emissions are normally in trace amounts but can be of significance when a leak occurs in a heat exchanger served by the cooling tower. Cooling towers are not amenable to add-on VOM control but are amenable to monitoring programs to detect leaks and enable timely repair to them. Rather than require the operators of such towers to individually obtain approved alternative control plans for such monitoring programs, the Agency has proposed to correct Subpart TT to include appropriate work practices. The proposed work practices are similar to ones proposed by USEPA in its standards for "Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Seven Other Processes", 57 FR 62608, December 31, 1992. The proposed work practices would not have to be followed for cooling towers where it can be shown that emissions are below the exclusion allowance contained in Section 218.980(d) and Section 219.980(d), as applicable.

The proposed work practices for non-contact process water cooling towers have been added as Sections 218.986(d) and 219.986(d). This work practice requires a monitoring and inspection program to detect leaks of VOM into the cooling water and the prompt identification and repair of the leaking heat exchanger. The Agency's proposal authorizes development of site-specific monitoring procedures through federally enforceable permits. If a cooling water system is pressurized sufficiently so that any leaks are into the process, the operator of the cooling tower needs only to show how the system will be monitored to assure adequate pressure. When leaks of VOM into cooling water do occur, they must be repaired. Recordkeeping and reporting requirements have been included to facilitate adherence to the work practice requirements.

Because "new" requirements are imposed on the operators of such towers, including the need to obtain a federally enforceable permit, a future compliance date of March 15, 1995, is set. A definition of "non-contact process water cooling tower" is also proposed.

The proposed amendments will affect Shell Oil, Wood River, among others. If the proposed amendments are adopted, Shell will not have to obtain an alternative plan and the Agency can issue the operating permit for the cooling towers at Shell's Wood River Petroleum Refinery. An appeal of the Agency's denial of this permit is now pending before the Board (92-101).

T. Miscellaneous Leaks

A situation similar to that for non-contact cooling towers also exists for leaks from miscellaneous components which emit VOM. These "miscellaneous" components are components not otherwise subject to RACT requirements under provisions for CTG categories including SOCMI, petroleum refining, pharmaceutical manufacturing, gasoline distribution, or dry cleaners. A work practice has also been developed at Sections 218.966(e), 218.989(e), 219.966(e), and 219.986(e) to accommodate VOM emissions from leaks from miscellaneous components. The Agency believes that these leaks are appropriately controlled with a program to expeditiously repair leaking components. The work practice parallels the work practice set forth in Subpart T, which regulates VOM leaks associated with pharmaceutical manufacturing.

IV. TECHNICAL AND ECONOMIC JUSTIFICATION

The technical feasibility and economic reasonableness of the existing rules have been addressed in dockets R91-7, R91-8, and R91-28. The proposed changes, as they clean up

the existing rules, are not believed to significantly alter the feasibility and reasonableness of the rules. The Agency has worked with the Illinois Environmental Regulatory Group and specific companies to assure that the proposed amendments do clean up the current rules and allow them to be approved by USEPA without posing additional impacts on affected sources. Many of the changes, such as the changes affecting R.R. Donnelley, Ford Motor Company, and Shell Oil are clearly beneficial to affected sources. As these changes generally clean up the rules and allow the state to replace the FIP, the effect of this proposal is certainly in the best interests of the State of Illinois.

#### **V. CONCLUSION**

The proposed amendments correct a variety of deficiencies and flaws in the existing rules for control of emissions of organic material and volatile organic material in ozone nonattainment areas. These amendments have been developed in conjunction with USEPA to allow USEPA to approve the RACT rules as part of Illinois' SIP. These amendments have also been developed with review and input from affected sources. Corrections of the type proposed by the Agency to these rules enhance their technical feasibility and economic reasonableness. The Agency encourages the Board to expeditiously move forward with this proceeding in accordance with the procedures of Section 18.5 of the Act and to complete this Omnibus Cleanup.

**Figure 1**

**Status of Terminology**

(The terminology of Parts 218 and 219 is altered as shown below by the amendments proposed in R93-9)

<b>Regulatory Context</b>	Part 201  State Permit Program	Part 212, 214, 215, 216 7 217  Emission Limits for PM, SO <sub>2</sub> , VOM (attainment), CO & NO <sub>x</sub>	Part 203  New Source Review	Part 218 & 219  Emission Limits for VOM (Nonattainment areas)	Section 39.5  Clean Air Act Permit Program
<b>Term for Site/Complex/Campus</b>	?	Plant	Source	Source	Source
<b>Term for Individual Equipment/Operation</b>	Emission Source	Emission Source	Emission Unit	Emission Unit	Emission Unit





Addendum to Testimony

SUBJECT: Rationale for Proposed Changes to Definitions in Parts 211 and 218/219

The goal of the proposed revisions is to develop a single set of definitions for purposes of the organic material rules, which provides technically sound and internally consistent definitions of relevant terms. This will simplify implementation of the current rules as well as providing a solid foundation for the further rules which will have to be adopted to satisfy the Clean Air Act. These definitions will be physically located in Part 211, and existing definitions in Parts 218 and 219 will be eliminated.

The proposed revisions generally give deference to the existing definitions in Part 218 and 219, which usually mirror definitions in the Federal Implementation Plan. There are a handful of exceptions where there are irreconcilable differences between terms as used in Parts 218/219 and 215 as listed below. For these terms, for purposes of Part 215, the Part 215 definitions (found in either §211.122 or §215.104) have been retained. As necessary, references to rules are also revised as appropriate for a set of definitions which will be located in Part 211.

Bulk gasoline plant  
Coating  
Coating line  
Miscellaneous metal parts and products coating  
Paper coating  
Paper coating line

The proposed revisions also attempt to correct a number of deficiencies in the definitions. Some of these deficiencies have been uncovered while working with these terms for the last 1 1/2 years, particularly by some of our newer staff who do not know what the definitions should mean. Others are a direct result of the decision to consolidate in Part 211, the relevant definitions related to Board emissions standards (Subchapter c of Chapter I of Subtitle A of Title 35). This requires that the integrity of Part 215 be maintained. The types of corrections that are attempted are listed below and discussed in more detail in the attachments.

- Usage of the terms "source" and "emission unit" in a manner consistent with the CAAPP, but also accommodating the use of the term "emission source" as found in Parts 201, 212, 214, 215, 216, 217 and elsewhere (Attachment 1).
- Elimination of the ambiguous term "facility" as a corollary to the above (Attachment 2).

- Clarification of terminology used for coating operations (Attachment 3).
- Clarification of terminology used for printing operations (Attachment 4).
- Elimination of unneeded definition, including definitions of terms which are problematic (Attachment 5).
- Revisions related to a focus on VOM emissions, for terms which can also apply for other contaminants (Attachment 6).
- Specification of applicable context, for terms which are defined for a narrow purpose (Attachment 7).
- Revision of definitions for consistent usage of subsidiary terms, e.g., "component" as equipment which may leak VOM (defined meaning) and "component" as a constituent part (usage in certain contexts) (Attachment 8).
- Significant clarification of existing definitions (Attachment 9).
- Definitions of various efficiencies (Attachment 10).
- Definitions to support proposed changes for automobile coating (Attachment 11).
- Relocation of definitions located elsewhere than §218.104 and §218.105 (Attachment 12).
- Minor clarifications of existing definitions (Attachment 13).
- Corrections of incorporations by reference (Attachment 14).

By: C. Romaine, April 1993

CPR:jmm/sp/499N/1-2

Attachment 1

Consistent Usage for Terms "Source" and "Emission Unit"

Actual emissions

Air contaminant - The phrase "from an emission source" is unnecessary.

Air pollutant - New term, included to support the definitions of source and emission unit.

Automobile or light-duty truck assembly or manufacturing plant.

Capture

Closed vent system - The phrase "piece or pieces of equipment" is substituted for "emission source"

Delivery vessel

Emission unit

Fuel combustion emission unit

Gas/gas method

Hood

Liquid/gas method

Owner or operator

Paint manufacturing source or plant

Petroleum refinery

Plant

Process - This term is deleted as it should not be used by itself. Rather, the terms "process unit", "process emission unit", "process emission source", --- should be used to appropriate for the context.

Process emission unit

Refinery unit or refinery process unit

Source

Start-up

Stationary emission unit

Stationary source

Vapor collection system

Attachment 1

Discussion

A new definition for the term "air pollutant" as this term is found in the federal denitions for "source" and "emission source". The definition is that found in Section 302(g) of the Clean Air Act. The meaning of term is identical to that of "air contaminant", as traditionally used in Illinois law and rule.

Attachment 2

Elimination of the Term "Facility"

Air pollution control equipment -- The word "apparatus" is proposed as substitute for the word "facility"

Bulk gasoline plant -- The word "source" is proposed as a substitute for the word "facility." In most situations, the bulk gasoline plant constitutes the entire source.

Bulk gasoline terminal -- The word "source" is proposed as a replacement for the term "facility."

Can coating facility -- Term deleted

Coil coating facility -- Term deleted

Custody transfer -- The word "systems" is proposed as a substitute for "facilities"

Dry cleaning operation or facility -- The label "dry cleaning facility" must be retained until relevant portions of Part 215 are revised to address "dry cleaning operations"

Fabric coating facility -- Term deleted

Full operating flow rate -- The phrase "source, emission unit or process unit, as applicable" is substituted for the word "facility"

Gas/gas method --

Gasoline dispensing operation or facility -- The label "gasoline dispensing facility" must be retained until relevant portions of Part 215 are revised to address "gasoline dispensing operations"

Heavy off-highway vehicle products facility -- Term deleted

Large appliance coating facility -- Term deleted

Liquid/gas method --

Metal furniture coating facility -- Term deleted

Miscellaneous metal parts and products coating line -- Term deleted

Operator of gasoline dispensing operation or facility --

Owner of gasoline dispensing operation or facility --



## Attachment 2

Paper coating facility --- Term deleted

Vinyl coating facility -- Term deleted

Wood furniture coating facility -- Term deleted

### Discussion

The term "facility" is used in Illinois' rules, and in other contexts as well with three different meanings. Under one meaning, a facility is a particular item of equipment, operation or area that makes possible or facilitates a particular activity. This usage is found with respect to "grain storage facilities," "loading facilities," "a facility for draining cleaned parts," "parking facilities on manufacturing properly" "coke oven door repair facility," "portable grain-handling facilities".... This usage is also found in the federal New Source Performance Standards where the "affected facility" is the particular item of equipment or operation to which a standard applies. This is also the usage of the term "facility" in the existing definitions of "emission source" and "air pollution control equipment." See Section 201.102.

In the second meaning of the term "facility," a facility is a plant, encompassing all equipment and operations at a particular site. For example, fugitive dust operating programs must include maps showing location of storage piles at a facility.

The third meaning of the term "facility" may or may not encompass an entire plant. A "gasoline dispensing facility" is an example of this meaning. Usually gasoline dispensing facilities are gasoline stations and their only activity, at least from the perspective of air pollution control, is the retail sale of gasoline. However, some gasoline dispensing facilities are part of manufacturing operations for in-plant vehicles. In this case, the term "facility" describes the discrete activities at the plant dealing with handling gasoline.

Because the term "facility" has historically been used with different meanings, it is best to minimize its use the term in Illinois' regulations. More specific terms should be used wherever possible, and term the facility should be limited to circumstances where any of the meanings would be acceptable.



### Attachment 3

#### Clarification of Terminology for Coating Operations

Note: No changes proposed to fundamental definition of "coating." The proposed change to the definition of "coating line" is a significant change addressed in Attachment 9.

##### Can

Can coating  
Can coating line

End sealing compound coat  
Exterior base coat  
Exterior end coat  
Interior body spray coat  
Over varnish  
Sheet basecoat  
Side-seam spray

##### Coil

Coil coating  
Coil coating line

Fabric coating  
Fabric coating line

Heavy off-highway vehicle products coating  
Heavy off-highway vehicle products coating line

Large appliances  
Large appliance coating  
Large appliance coating line

Magnet wire  
Magnet wire coating  
Magnet wire coating line

Metal furniture  
Metal furniture coating  
Metal furniture coating line

~~Miscellaneous-metal-parts-and-products~~  
Miscellaneous metal parts and products coating  
Miscellaneous metal parts and products coating line

Paper coating  
Paper coating line

### Attachment 3

Vinyl coating  
Vinyl coating line

Wood furniture  
Wood furniture coating  
Wood furniture coating line

#### Discussion

General - The coating rules address two different activities. "Coating" are regulated in terms of their VOM content, either individually, coating-by-coating, or based on the daily-weighted-average VOM content of all such coatings applied on a single line. As an alternative to regulation of coating VOM content, individual "coating lines" are regulated in terms of their add-on control equipment for VOM emissions. Thus the definitions supporting the coating rules must address both categories of "coating" and categories of "coating lines." A consistent and sound approach to coating terminology is essential to assure the rules cover the same operations irrespective of the manner in which the operations are regulated.

The proposed changes accomplish this by making each of the definitions of the various categories of "coating" and "coating line" complete by themselves, without any need to refer to the parallel term. That is, the definition of a particular type of coating, e.g., can coating, includes all relevant elements to define coating materials which are subject to regulation as can coatings. The definition of a "can coating line" repeats all these relevant elements. In each case the listing of elements is identical. This approach appears redundant, but avoids any possibility of confusion.

The definitions of a particular "coating" and "coating line" may build on a subsidiary term which defines all or some of the objects to which a particular coating is applied. In the case of a "can coating," a can coating may be applied to a "can," a defined term or to can parts, an undefined term. With this approach a subsidiary definition of the object being coated may be helpful but is not essential. Such definitions are only provided for automobiles, light-duty trucks, coils, large appliances, magnet wire, metal furniture and wood furniture. In the other cases, the objects being coated are not defined. For example, a definition of paper would not be particularly helpful where paper coatings include coatings applied to paper, foil or plastic film.

The need for changes to the current coating definitions to standardize the approach is shown by the existing terminology relative to cans. The definition of "can" includes pails, drums and portable tanks. This is because the definition does not include a qualification on metal thickness. This qualification is placed in the definition of a "can coating." However, the definition of a "can coating" makes no references to the coating of cans, only to the coating of thin single-walled metal containers. The definition of "can

### Attachment 3

coating line" does mention coating of cans, and also can components. However, the definition of a "can coating line" makes no mention of "can coatings," thereby omitting the requirement that cans be thin and single walled containers. "Can coating lines" also address protective, decorative and functional coatings. Similar inconsistencies exist in definitions for other categories of coatings. For example, is a line coating parts of metal furniture, a metal furniture coating line? Is application of plastisol within the scope of a vinyl line? The proposed changes eliminate these discrepancies in the respective descriptions of "can coating" and "can coating line."

Miscellaneous metal parts and products - This category of coating operation is in part defined by exclusion. That is, miscellaneous metal parts and products coating operations are operations coating metal objects that do not qualify as can coating operations, coil coating operations, etc. It is important that these other operations are described or addressed in the definitions for miscellaneous metal parts and products coating operations so that their scope is unchanged.

The proposed changes are intended to make clear that these other categories are unchanged. This is done by referring to the terms identifying these categories, without attempting to restating their primary definitions.

Can coatings again provide an example of the need to change this definition. For can coatings, further complications arise relative to the definition of "miscellaneous metal parts and product coatings" in the current rules. These miscellaneous coatings are defined so as to exclude coatings applied to cans. Accordingly coatings applied to sheet metal stock for cans and can ends, which are "can coatings," would also be included within the definition of "miscellaneous metal parts and products coatings." This is not the intent of the rule.

## Attachment 4

### Clarification of Printing Terminology

Flexographic printing -- Elimination of redundant provisions, which duplicate provisions incorporated through the definition of "printing"

Flexographic printing line -- Elimination of redundant provisions

Ink -- Clarification for consistency with other terminology, "image" supplemented with "words, pictures, or designs"

Packaging rotogravure printing line -- Elimination of redundant provisions, which duplicate provisions incorporated through definition of "packaging rotogravure printing." See also "publication rotogravure printing line."

Printing -- Clarification for consistency

Roll printer -- Elimination of redundant provisions from "roll printing"

Roll printing -- Elimination of redundant provisions from "printing"

Rotogravure printing -- Elimination of redundant provisions from "printing"

Rotogravure printing line -- Elimination of redundant provisions from "rotogravure printing"

### Discussion

The definitions of the above terms related to printing "repeat" provisions found in other subsidiary definitions. This is confusing as a general matter, because the role and purpose of the subsidiary definitions is unclear. It is particularly confusing when there is an inconsistency in wording between a term and subsidiary terms. For example, one term refers to printing as dealing with "images" while another term refer to "words, pictures, or designs." The general principles of regulatory interpretation would suggest that word selection is intentional, and different wording implies different meaning.

Attachment 5

"Elimination" of Unneeded Definitions\*

\* Definition eliminated for purposes for Part 218 and 219 only. Definition will be retained for other purposes.

Acid gases\* -- Not used in Parts 218/219 (relates to Section 9.5 of the Act)

Actual heat input\* -- Not used in Part 218/219 (only used in Part 212, 214, 216 and 217)

Allowable emissions -- Not used in Parts 218/219

Ambient air quality standard -- Not used in Parts 218/219

Applicator -- Unneeded -- The term "coating applicator" is defined. The term "applicator" is also defined circularly, as it is a device used on a "coating line"

Bituminous coatings -- Not used in Parts 218/219

Coating plant\* -- Not used in Parts 218/219 (only used in Part 215)

Complete combustion\* -- Not necessary for Part 218/219 (subsidiary term for definition of "excess air")

Emission source\* -- No longer needed, per changes discussed in Attachment 1.

Excess air\* -- Not used in Parts 215 or 218/219 (used in other Parts)

Gross vehicle weight -- Not needed. See also "gross vehicle weight rating"

Hood capture efficiency -- Not used in Parts 218/219

Hour -- Not needed. Usage of the term "hour" in Parts 218 and 219 is inconsistent with this definition. For examples, see §21.423(f) and (i), §218.429(c)(1), §21.447, §21.489(b), and Appendix B.

Low solvent coating\* -- Not used in Parts 218/219.

Malfunction -- Not needed. Usage of the term "malfunction" in Parts 218 and 219 is inconsistent with this definition. See usage in Subpart Y and proposed §21.105(d)(3).

PPM (vol) -- Not needed.

Reasonably available control technology\* --

Rolling limit -- Unneeded. Relevant provisions now incorporated into definition of "maximum theoretical emissions"



Attachment 5

Single coat -- Not used in Parts 218/219

Specified air contaminant\* -- Not used in Parts 218/219

Stack\* --- Not needed

Undercoaters -- Not used in Parts 218/219

Vehicle -- Unneeded. Contradicts meaning of term "vehicle" in "heavy off-highway vehicle"

Woodworking\* -- Not used in Parts 218/219



Attachment 6

Focus on VOM Emissions

Actual emissions -- Clarify usage

Capture device -- Generalize term

Capture efficiency -- Clarify usage

Control device -- Generalize term

Emission rate -- Clarify usage

Process unit

Discussion

The above terms are currently defined specifically for purposes of VOM regulation. For example, the definition of "actual emissions" refers to emissions of VOM. However, these terms are equally applicable to contaminants other than VOM. It is proposed to address the general nature of these terms. The preferred approach is to make the term available for all purposes. This is done for "control device" by adding as examples of such devices, control devices used for contaminants other than VOM.

The other approach is to retain a narrow usage of a term which is limited to VOM, but to clarify the narrow scope of the term. This is done for "actual emissions" by specifying that the definition is for purposes of Part 218 and 219, so that definition does not apply in Parts dealing with contaminants other than VOM.

Attachment 7

Specification of Applicable Context

Batch loading -- Degreasing

Enclose -- Pharmaceutical Manufacturing

Excessive release -- Hydrogen sulfide emissions

Final repair coat -- Automobile or light-duty truck coating

Fountain solution -- Printing

In-process tank -- Pharmaceutical manufacturing

Lacquers -- Wood furniture coating

Material recovery section -- Polystyrene manufacturing

Oven -- Coating and printing

Vapor recovery system -- VOL storage tanks

Discussion

These terms are defined for a specific context, and the context should be identified.

Attachment 8

Consistent Usage for Subsidiary Terms

Capture system -- "Pollutant" replaced with "contaminant"

Control device -- "Pollutant" replaced with "air contaminant"

Manufacturing process -- "Component" replaced with "constituent part"

Metallic shoe-type seal -- "Coated fabric" replaced with "coated membrane" to avoid interaction with provisions for fabric coating

Miscellaneous fabricated product manufacturing process -- "Components" replaced with "parts"

Valves not externally regulated -- "Controls" replaced with "provision for external adjustment or governance during their operation"

## Attachment 9

### Significant Clarifications

As applied -- Poor definition. The literal meaning of the definition is not consistent with the intent. Relevant language is added from the definition in the model CTG RACT rules.

Automobile -- Poor definition. The literal meaning of the definition is not consistent with intent.

Coating line -- Better definition available. The scope of the term "coating line" is critical for Part 218 and Part 219. Cross-line averaging is generally not permissible under Part 218 or Part 219 without USEPA approval, unlike Part 215 where cross-line averaging is available for all existing coating lines. Accordingly, under Part 218 and Part 219 it is important to know the bounds of an individual coating line. The definition of "coating line" in USEPA's model CTG RACT rules more clearly explains the scope of a coating line than the current definition in Part 218 and Part 219. In particular, it indicates that a "coating line" ends at the point where a coating is dry or a different coating is applied." This has been the Agency's historical practice.

Solvent -- Poor definition. The literal meaning of the definition is inconsistent with intent. A common meaning of the term "solvent" is intended, specifying certain types of materials commonly used as solvents. However, in a particular situation, such a material need not be used as a "solvent" as the term "solvent" is used in chemistry. For example, what does "solvent-based cement" mean for manufacture of rubber tires. Relevant language is proposed to be added to the definition of "solvent" from USEPA's model CTG RACT rules.

Storage tank or storage vessel -- Poor definition. Excludes tanks which store gases, which are in fact required to be pressure tanks.

Topcoat operation -- Poor definition. Consolidates operations on separate assembly lines. Proposed definition is consistent with current USEPA intent for automobile assembly sources as expressed in the model CTG RACT rules. (See also proposed definition of "prime surfacer operation.")

Attachment 10

Definitions of Various Efficiencies

Capture efficiency --

Control efficiency --

Transfer efficiency --

Discussion

The above terms describe efficiencies of various physical phenomena. For consistency and to avoid possible confusion it is desirable that the definitions of these terms identify the units of measurement where the units might be misunderstood, e.g., weight vs. concentration of VOM for control efficiency, and indicate that measurements are specific to the particular time period.

Attachment 11

New Terms to Support Proposed Changes for Automobile Coatings

Application area --

Primer surfacer operation --

Topcoat operation --

Discussion

These terms support changes being proposed for automobile coating. Most important to the single affected source, Ford, the related changes establish a VOM limit in terms of applied solids for primer surfacer operations, which may be complied with using USEPA's "Topcoat Protocol."



Attachment 12

Relocation of Definitions

Air oxidation process -- Transfer from Section 218.521/219.521

Conventional soybean crushing source -- Transfer from Section 215.104

Ethanol blend gasoline -- Transfer from Section 215.104

Full operating flow rate -- Transfer from Section 218.521/219.521

Light oil -- Transfer from Section 215.104

Specialty soybean crushing source -- Transfer from Section 215.104

Attachment 13

Minor Clarification

Component -- "Open ended pipes" replaced with "open ended valves and lines," for consistency with terminology in substantive control requirements.

Continuous process -- Clarification to avoid confusion between manufacture of polystyrene resin and use of polystyrene resin.

End sealing compound coating -- Inclusion of term "can coating," to assure consideration as a coating, and more specifically, a "can coating."

Exterior base coat -- Correction, to avoid overlap with the term "sheet base coat."

External floating roof -- Generalization, to allow the term to address roofs used on tanks which are not storage tanks.

Extreme environmental conditions/Extreme performance coating -- Consolidation to avoid an unneeded subsidiary term.

Federally enforceable limitations and conditions -- Correction for a consistent label for the articles being defined and to include limits in operating permits issued pursuant to 40 CFR Part 70.

(Refinery) Fuel gas system -- Clarification, to avoid confusion with non-refinery fuel gas systems.

Gas service -- Clarification, to address items which are not components, for example, a reactor.

Heatset -- Clarification, sheetfed lithography may also be heatset.

( In ) Vacuum service -- Clarification for consistency with labels for gas service, liquid service, etc.

Lithographic printing line -- Clarification, to place language of least importance at the end of the definition.

Miscellaneous fabricated product manufacturing process -- Category restored, "rubber solutions to molds."

Offset -- Deletion of unnecessary phrase.

Prime coat -- Clarification, to utilize established terminology as found in the related definition of "topcoat."

Process unit -- Clarification. See also "gas service" above.

Attachment 13

Reid vapor pressure -- Improvement. A more accurate definition is proposed which avoids the need to specify the applicable units in which Reid vapor pressure is measured.

Roll coater -- Elimination of redundant provisions from roll coating (similar changes are also proposed for "roll printer" and roll printing").

Roll coating -- Inclusion of all significant elements describing the process of "roll coating" in this definition.

Standard Industrial Classification Manual -- Relevant material included in definition of "source."

Two-piece can -- Clarification. Consistency with NSPS definition. (What is a shallow cup?)

Web -- Clarification. Term is applicable to both coating and printing, and can be used as a noun or adjective.

Attachment 14

Update of Incorporation by Reference

Distillate fuel oil

Heavy liquid

No detectable volatile organic material emissions

Petroleum

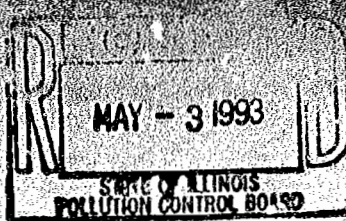
Reid vapor pressure

Residual fuel oil

True vapor pressure

CPR:jmm/sp/499N/3-22

STATE OF ILLINOIS )  
 ) SS.  
COUNTY OF SANGAMON )



R93 9

PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached Testimony of Christopher Romaine upon the person to whom it is directed, by placing a copy in an envelope addressed to:

Michael Lefkow  
R.R. Donnelley & Sons  
223 Martin Luther King Drive  
Chicago, IL 60616

Eugene Bernstein  
Sidley & Austin  
1 First National Plaza, Suite 5200  
Chicago, IL 60603

and mailing it by Federal Express from Springfield, Illinois on April 29, 1993 with sufficient postage affixed.

Yvonne C. Coleman

SUBSCRIBED AND SWORN TO BEFORE ME

this 29th day of April 1993

Anne M. Alexander

Notary Public

