



Affairs (DCCA), Small Business Assistance Bureau. DCCA's Impact analysis states that the proposed rule will have no economic impact on small businesses.

The remainder of the public comment and testimony can be divided into three general categories: (1) the comments of the proponent, Chicago Lung Association (CLA), and the United States Environmental Protection Agency (USEPA), (2) the comments of the ethanol producers, and (3) the comments of the Illinois petroleum industry.

#### **(1) Comments of the CLA and USEPA**

The Chicago Lung Association appeared at hearing to restate its position that its comments filed on March 1, July 17, July 21, and August 2, 1989 support the adoption of the 9.0 psi RVP rule originally proposed and the adoption of the 9.5 psi rule which is the subject of this subdocket. CLA stated that while it was pleased that the Board was proceeding with the subdocket (A) proposal, it believes that Illinois should continue and adopt the 9.0 psi RVP rule earlier than the 1992 date expected for adoption by USEPA.

USEPA also appeared at hearing and submitted post-hearing comments (P.C. 63). USEPA reiterated its position that in light of the serious ozone nonattainment problem in the Chicago area it supports the gasoline volatility control measures proposed in subdocket A. USEPA stated that the potential benefits of early implementation of RVP control in the Chicago area are significant. According to MOBILE4 computer modeling analysis, reducing the allowable gasoline volatility to 9.5 psi in 1990 would achieve a 19 percent reduction in evaporative emissions, or a total of 206 tons per day between 1990 and 1992. (R. at 424).

#### **(2) Comments of Ethanol Industry**

The comments of the ethanol industry were submitted as follows: P.C. 58 by Pekin Energy Company and P.C. 59 by the Renewable Fuels Association. At hearing, the Board received testimony from the Pekin Energy Company, Martin Oil Company, and National and Illinois Corn Growers Associations. These commenters noted their support for the 1.0 psi RVP exemption granted for ethanol blend gasolines. Further, as Martin Oil is an owner and operator of many service stations in Illinois, it shares some of the concerns, noted below, of the petroleum industry. The Board will address those concerns below.

As the Board has noted its desire to remain as parallel to the federal rule as possible, and as the federal rule permits a 1.0 psi exemption for ethanol blends, the Board will retain the exemption in its rule.

### (3) Comments of Petroleum Industry

The comments of the petroleum industry were submitted as follows: P.C. 51, on November 13, 1989 by the Illinois Petroleum Council, P.C. 52 on November 13, 1989 by Mobil Oil Corporation, P.C. 53 on November 13, 1989 by Marathon Petroleum Company, P.C. 54 on November 13, 1989 by Three Rivers Manufacturer's Association and P.C. 57 filed November 14, 1989 by Clark Oil and Refining Corporation. Of these, the Illinois Petroleum Council, Marathon, and Clark appeared at hearing to offer testimony. Generally the testimony of these participants was a summation of their written comments. Post hearing comments were submitted as follows: P.C. 60 by the Illinois Petroleum Marketers Association, P.C. 61 by Texaco Inc., P.C. 65 by Clark Oil and P.C. 67 by Marathon Oil.

The primary comment of these participants is a reiteration of comments previously submitted. While the commenters note that the proposed 9.5 standard is not as stringent as the 9.0 standard, they maintain that gasoline marketing is based upon a national network and believe that a national standard works best in this type of situation. Thus, they request that the Board await adoption by the USEPA of the 9.0 nationwide gasoline RVP rule expected to be finalized in early 1991 for implementation in the summer of 1992.

In support of this position, Marathon notes that the difficulty it faces lies in the fact that its terminals in Hammond and Griffith, Indiana serve as a hub for supplying not only northern Illinois but also Wisconsin, Michigan and Indiana. Marathon assesses its ability to comply with the proposed regulation will hinge on two factors: (1) its ability to gain access to additional tankerage in the Hammond-Griffith area, or (2) its ability to receive on exchange from other Chicago area sources that produce 9.5 psi RVP gasoline.

Clark also states that for it to comply with a lower volatility rule, it must construct additional storage facilities. Clark states that it is in the process of preparing to construct such facilities at a cost of 1.5 million dollars, but that completion of the facility is not scheduled for at least 18 months.

With respect to this preliminary argument, the Board notes that it has already taken the position not to await federal action in this area. Despite USEPA's best intentions, there is no guarantee that USEPA will adopt the rule for implementation in 1992. Further, the Board believes that substantial emission reductions can be realized by early implementation in 1990. The Board believes that a statewide 9.5 psi RVP rule is economically reasonable and technically feasible. While the Board appreciates the situations of Marathon and Clark, and others similarly

situated, the Board is not persuaded to alter that belief. The Board notes that facilities unable to obtain exchanges from Chicago area producers of 9.5 psi RVP gasoline or unable to obtain additional tankerage, or storage facilities, have the variance proceeding available to them in which they can specifically make their cases of arbitrary or unreasonable hardship.

Amoco Oil Company also appeared at hearing on November 19, 1989, and announced that it supports the subdocket (A) proposal for a statewide 9.5 psi RVP standard. In fact, Amoco stated that it intends to sell 9.5 psi RVP gasoline from its service stations in the Chicago Metropolitan area, most of northern Illinois, and parts of northwest Indiana during the months of July and August of 1990 to help those areas reduce their ozone problems. Amoco's lower volatility gasoline will be produced at its Whiting, Indiana refinery where it has invested approximately \$1 million to enable it to produce the lower volatility product.

Amoco joins, however, with the other gasoline producers who state that if the Board decides to proceed with the rule, certain revisions should be made to the enforcement provisions of the proposal to ease compliance and to conform with the federal regulation.

**(a) Test Methods**

The first of these suggested revisions concerns the test methods referenced in proposed Section 215.585(e). As proposed at First Notice, Section 215.585(e) states that:

The Reid vapor pressure shall be measured in accordance with test method ASTM D323 or in the case of gasoline-oxygenate blends which contains water-extractable oxygenates, a modification of ASTM D323 as set forth in 40 CFR 80, Appendix E, incorporated by reference in Section 215.105.

However, at hearing, Marathon and other participants pointed out that the test method for water-extractable oxygenates, also known as the "dry method", is the only RVP test method recognized and approved by the USEPA in its national volatility reduction program. These commenters point out that the dry method, now known as ASTM D-4953, is appropriate for both oxygenated and non-oxygenated gasolines. The commenters contend that, as written, the rule would require refiners of non-oxygenated gasolines to test batches twice, once using ASTM D-323 to satisfy Illinois' rule and once using ASTM D-4953 to satisfy the federal rule. To eliminate the duplicate testing requirement, the commenters recommended that subsection (e) be revised to allow the option of using either D-323 or D-4953 to demonstrate compliance.

The Board agrees and has revised Section 215.585(e) to permit the use of either ASTM test method D-323 or D-4953. Also, the Board notes that it has added ASTM D-4953 to the Incorporations by Reference section, Section 215.105(a)(15).

**(b) Reference To USEPA Regulation**

In post-hearing comments, Marathon (P.C. 67) suggested that:

In the proposed regulation, several references are made to various appendices to U.S. EPA's gasoline volatility regulation published on March 22, 1989 (54 Fed. Reg. 11868). Sections 215.105(1) and 215.585(d)(3), (e) and (f) all refer to the federal regulation as "40 CFR 80." Though the federal volatility regulation will be codified at 40 CFR 80, our understanding is that the codification has not yet occurred. Therefore, any reference to "40 CFR 80, Appendix \_\_\_" is not fully descriptive. We recommend that references to the federal volatility regulation be clarified by using the designation "54 Fed. Reg. 11868, Appendix \_\_\_."

For two reasons, the Board declines to cite the Federal Register each time the appendices in the Code of Federal Regulation (CFR) are referred to. First, in the incorporation by reference section, Section 215.105(i), a specific citation is provided to the Federal Register where Appendices D, E, and F are adopted. Section 215.105(i) specifically refers the reader to 54 Fed. Reg. 11897, March 22, 1989. The Board believes that during the pendency of the codification this will satisfy Marathon's concern. Second, the Board believe that once the appendices are codified, citation to the CFR will be the most direct and convenient form of citation. Thus, the Board will retain the citations as proposed at First Notice.

**(c) Record Keeping**

The third requested change relates to the documentation required in Section 215.585(h)(1) and (2). These sections require that refiners and suppliers clearly designate on shipping documents the RVP of gasoline shipped from refiners and distribution facilities. The commenters argue that this section imposes an unnecessarily burdensome requirement and suggest that a less stringent procedure be applied. In support of this position, Marathon stated:

While most refiners test the RVP of gasoline prior to shipment, the specifically measured RVP, the value that is determined is not currently

disclosed on pipeline meter tickets. And at most terminals, unlike refineries, RVP test equipment is not even available on-site.

A regulatory requirement to disclose gasoline RVP on bills of lading would force terminal operators to take storage tanks out of service after each receipt, draw a sample, send it to a qualified laboratory and await results.

This would likely keep the tank out of service for at least one or two days, possibly longer, and could create significant supply disruptions. (R. 328).

The commenters' suggest that a more reasonable, yet effective method of documentation would be to require shipping documents to state whether the gasoline in question is suitable for sale in Illinois during the regulatory control period. The commenters believe that a requirement specifying whether gasoline complies or does not comply with the Illinois standard, rather than specifying the RVP of each batch of gasoline, essentially mirrors the documentation requirements imposed by USEPA's volatility regulation.

The Board received as post-hearing comment suggested language for clarification of Section 215.585(h). In P.C. 67, Marathon suggested minor amendments which would apply to gasoline refiners and ethanol blenders. Essentially, refiners and suppliers would be required to state on invoices, bills of lading, or other documents used in normal business practice that the product meets applicable state Reid vapor pressure standards. In P.C. 66, the Renewable Fuels Association (RFA) suggested amendments more substantive in nature. The RFA's suggested language would require a certification such as that suggested by Marathon, but only for gasoline refiners and not for ethanol blenders. The RFA's suggested language would require only that a facility receiving an ethanol blend be provided with a copy of documentation stating to the ethanol blender that the gasoline to which ethanol was added was in compliance with applicable state standards. The RFA's language would not require ethanol blenders to state that the product, after blending, meets applicable state standards.

The Board has amended Section 215.585(h)(1) to require that each refiner or supplier that distributes gasoline or ethanol blends state on invoices, bills of lading, or other documentation normally used that the product complies with the state Reid vapor pressure standard. As the 1.0 psi RVP exemption for ethanol blends is maintained in Section 215.585(c), the Board sees no reason to treat ethanol blenders different from gasoline refiners in this context and will require ethanol blenders to provide the

same statement. Further, this requirement should provide incentive to ethanol blenders to ensure that their ultimate product does not exceed the 1.0 psi RVP exemption set forth in Section 215.585(c).

In Section 215.585(h)(2), many commenters suggested that the two year requirement for the maintenance of records is unreasonably burdensome and beyond that which is necessary to ensure compliance. The commenters propose to reduce the time period to one year. The Board notes that the federal rule apparently requires that the records be retained for at least one year. As the Board has stated its intent to adopt a rule as similar in substance to the federal rule as possible, the Board will grant the commenters' request. Section 215.585(h)(2) has been revised to require that records be kept for at least one year.

#### (d) Testing Tolerance

At hearing and in comments, many commenters proposed that the Board recognize variability inherent in test methods used to measure Reid vapor pressure by adding a provision regarding RVP enforcement tolerance. Testing tolerances of 0.3, 0.4, and 0.5 psi were recommended. Specific language was suggested by P.C. 67.

The Board notes that this issue, too, has been addressed in the federal rulemaking. In USEPA's Notice of Final Rulemaking, 54 Fed. Reg. 11868, USEPA stated:

EPA has determined that gasoline refiners and other regulated parties will be expected to meet applicable RVP standards in use. In other words, they must take test variability into account in producing (and marketing) gasoline and cannot rely on the Agency to automatically provide an enforcement tolerance in addition to the RVP standard. For example, if the applicable RVP standard is 10.5 psi and the Agency finds a sample of gasoline to exceed this standard (e.g., 10.6 psi), this will be considered a violation of the regulatory standard that could subject liable parties to an enforcement action. This is the same manner in which the Agency's motor vehicle emission control standards are enforced.

EPA's experience in its RVP testing program has been that consistent results can be obtained with careful testing procedures. In its analysis of RVP test results, the Agency has found that the repeatability of testing conducted with the dry Herzog method is approximately 0.30 psi. EPA

expects future precision to be as good as, or better than, this value. In order to ensure quality results, the Agency lab conducts daily RVP tests of "pure" components with known RVP values (e.g., cyclopentane).

The final regulations provide a partial defense to certain parties who can demonstrate test results evidencing that gasoline found to be in violation was in compliance with the applicable RVP standard when it left that party's hands. See, for example, 40 CFR 80.28(g)(4)(i). In administering this provision, the Agency will look at the quality of a party's testing program to determine how much weight will be given to test results in a particular case. For example, EPA will place a higher value on test results if (1) multiple samples (rather than a single sample) have been taken from a batch and tested; (2) the party's laboratory has run correlation tests with EPA's laboratory, an independent laboratory, or a national exchange program; and/or (3) a party's testing program includes regular verification using a component of known RVP.

The Board agrees with USEPA's assessment of this issue; consistent testing results can be obtained with careful testing procedures. Therefore, a numerical testing tolerance will not be written into the rule. However, the Board has stated that it wishes its rule to parallel the federal rule as closely as possible. Thus, the Board notes that it intends to include in a decision in any enforcement proceeding brought pursuant to this proposed section an analysis of the quality of the party's testing program to determine how much weight will be given to test results in a particular case. The Board, like USEPA, will place a higher value on test results if: (1) multiple samples (rather than a single sample) have been taken from a batch and tested; (2) the party's laboratory has run correlation tests with USEPA's laboratory, an independent laboratory, or a national exchange program; and/or (3) a party's testing program includes regular verification using a component of known RVP.

The Board notes, finally, that it has not incorporated this intent into the language of the proposed text because none of USEPA's enforcement provisions have been proposed therein, nor has the issue of including such language been aired at hearing. The Board has explicitly stated its intent to adopt a rule that parallels the federal rule as closely as possible consistent with the more stringent RVP standard. The Board believes that this articulated intent and the specificity of USEPA's enforcement procedures should suffice to guide the Agency's administration of the gasoline volatility rules. If it appears later that proper

administration of this rule requires specific enforcement regulations, the Board will consider such rules at that time.

**(e) Lead Time**

Many of the commenters contend that refiners and suppliers will require adequate lead time to produce and distribute sufficient quantities of compliant gasoline. They point out that as USEPA must approve the rule as a revision to the State Implementation Plan(SIP) and as the time period in which USEPA will take its official action is uncertain that it is critical that refiners and suppliers be assured adequate lead time prior to enforcement of the rule. In general, the commenters recommend a 3 to 4 month lead time provision. P.C. 67 recommends a lead time of 90 days and offers suggested language.

The Board does not dispute that it may well require approximately 90 days for refiners and suppliers to produce and distribute compliant product. However, the Board stated in its First Notice Opinion that it desired to have these rules applicable and enforceable for the regulatory control period, i.e., July and August, of 1990 so as to obtain the benefits of early implementation. The Board continues to believe that it is possible and reasonable to require compliance during July and August of this year. In fact, given that the Board today proceeds to Second Notice and given that the Joint Committee on Administrative Rule (JCAR) must act within 45 days of the Board's Second Notice submission, the Board expects to proceed to Final Adoption of this rule at its regularly scheduled Meeting on March 8, 1990. Shortly thereafter, the Illinois Administrative Procedure Act (APA) requirements will be completed by filing the rule with the Secretary of State's Office, Administrative Code Division.

The Board recognizes that the enforceability of this rule is subject to USEPA approval. However, the Board notes that the rule itself becomes official and effective under the APA upon filing with the Secretary of State. As the Board intends to file the rule with the Secretary of State soon after the March 8, 1990 meeting, the Board expects the rule to be effective sometime in mid-March, which is 3-1/2 months before the beginning of the regulatory control period. Particularly given the USEPA's support of this regulatory initiative, the Board believes that the effectiveness of the rule flowing from its filing with the Secretary of State provides sufficient basis upon which the refiners and suppliers can rely to begin the process of preparing a compliant product.

Thus, the Board believes that under the schedule discussed above, refiners and suppliers will have the lead time that they request from the date that the rule becomes effective in Illinois. The Board is not persuaded by the commenters apparent

position that the lead time should begin to run from the date of final action by USEPA. As the rule will be effective in mid-March, the Board sees no reason why the lead time cannot run concurrently with USEPA's action on the SIP submittal.

Finally, the USEPA's action on the SIP submittal is beyond the jurisdiction of the Board. The Board can only hope that USEPA will complete its action on the SIP submittal prior to the start of the regulatory control period. Although specifically asked at hearing, USEPA declined to hazard a guess as to how long its process would or could take, except to state that it intended to expedite the process as much as possible and that USEPA's headquarters was already aware of the Board's initiative and that it had indicated a willingness, pending the technical aspects, to approve the rule as a SIP revision. (R. at 430). Thus, the Board is confident that the rule will be approved as a SIP revision consistent with the Board's desire that the rule be enforceable on or before the July 1, 1990 beginning date of the regulatory control period.

#### ORDER

The proposed amendments are hereby adopted for Second Notice, and the Clerk is directed to submit the proposal to the Joint Committee on Administrative Rules.

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

PART 215  
ORGANIC MATERIAL EMISSION STANDARDS AND LIMITATIONS

SUBPART A: GENERAL PROVISIONS

Section	
215.100	Introduction
215.101	Clean-up and Disposal Operations
215.102	Testing Methods
215.103	Abbreviations and Conversion Factors
215.104	Definitions
215.105	Incorporations by Reference
215.106	Afterburners
215.107	Determination of Applicability

SUBPART Y: GASOLINE DISTRIBUTION

Section	
215.581	Bulk Gasoline Plants
215.582	Bulk Gasoline Terminals

215.583 Gasoline Dispensing Facilities  
215.584 Gasoline Delivery Vessels  
215.585 Gasoline Volatility Standards

Section 215.104 Definitions

"Ethanol blend gasoline" means a mixture of gasoline and at least 9% ethanol by volume.

"Reid vapor pressure": is the standardized measure of the vapor pressure of a liquid in pounds per square inch absolute (kPa) at 100 F (37.8 C).

"Retail Outlet": means any gasoline dispensing facility at which gasoline is sold or offered for sale for use in motor vehicles.

"Wholesale Purchaser-Consumer": means any person or organization that purchases or obtains gasoline from a supplier for ultimate consumption or use in motor vehicles and receives delivery of the gasoline into a storage tank with a capacity of at least 550 gallons (2082 l) owned and controlled by that person.

Section 215.105 Incorporations by Reference

The following materials are incorporated by reference:

- a) American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103:
  - 1) ASTM D 1644-59 Method A
  - 2) ASTM D 1475-60
  - 3) ASTM D 2369-73
  - 4) ASTM D 2879-83 (Approved 1983)
  - 5) ASTM D 323-82 (Approved 1982)
  - 6) ASTM D 86-82 (Approved 1982)
  - 7) ASTM E 260-73 (Approved 1973), E 168-67 (Reapproved 1977), E 169-63 (Reapproved 1981), E 20 (Approved 1985)
  - 8) ASTM D 97-66
  - 9) ASTM D 1946-67
  - 10) ASTM D 2382-76

- 11) ASTM D 2504-83
  - 12) ASTM D 2382-83
  - 13) ASTM D 4057-81 (Approved 1981)
  - 14) ASTM D 4177-82 (Approved 1982)
  - 15) ASTM D 4953-89
- b) Federal Standard 141a, Method 4082.1.
  - c) National Fire Codes, National Fire Prevention Association, Battery March Park, Quincy, Massachusetts 02269 (1979).
  - d) United States Environmental Protection Agency, Washington, D.C., EPA-450/2-77-026, Appendix A (October 1977).
  - e) United States Environmental Protection Agency, Washington, D.C., EPA-450/2-78-051 Appendix A and Appendix B (December 1978).
  - f) Standard Industrial Classification Manual, published by Executive Office of the President, Office of Management and Budget, Washington, D.C., 1972
  - g) 40 CFR 60, Appendix A (1986).
  - h) United States Environmental Protection Agency, Washington D.C., EPA-450/2-78-041.
  - i) 40 CFR 80, Appendices D, E and F, adopted March 22, 1989 at 54 Fed. Reg. 11897.

BOARD NOTE: The incorporations by reference listed above contain no later amendments or editions.

Section 215.585 Gasoline Volatility Standards

- a) No person shall sell, offer for sale, dispense, supply, offer for supply, or transport for use in Illinois gasoline whose Reid vapor pressure exceeds the applicable limitations set forth in subsections (b) and (c) during the regulatory control periods set forth as follows:
  - 1) The regulatory control period for calendar year 1990 shall be July 1 to August 31 for retail outlets, wholesale purchaser-consumer facilities, and all other facilities.

- 2) The regulatory control period for calendar year 1991 and each calendar year thereafter shall be July 1 to August 31 for retail outlets, wholesale purchaser-consumer facilities, and all other facilities.
- b) The Reid vapor pressure of gasoline, a measure of its volatility, shall not exceed 9.5 psi (65.5 kPa) during the regulatory control period in 1990 and each year thereafter.
- c) The Reid vapor pressure of ethanol blend gasolines shall not exceed the limitations for gasoline set forth in subsection (b) by more than 1.0 psi (6.9 kPa). Notwithstanding this limitation, blenders of ethanol blend gasolines whose Reid vapor pressure is less than 1.0 psi above the base stock gasoline immediately after blending with ethanol are prohibited from adding butane or any product that will increase the Reid vapor pressure of the blended gasoline.
- d) All sampling of gasoline required pursuant to the provisions of this Section shall be conducted by one or more of the following approved methods or procedures which are incorporated by reference in Section 215.105.
  - 1) For manual sampling, ASTM D4057;
  - 2) For automatic sampling, ASTM D4177;
  - 3) Sampling Procedures for Fuel Volatility, 40 CFR 80 Appendix D.
- e) The Reid vapor pressure of gasoline shall be measured in accordance with either test method ASTM D323 or in the case of gasoline-oxygenate blends which contains water-extractable oxygenates, a modification of ASTM D323 known as the "dry method" as set forth in 40 CFR 80, Appendix E, incorporated by reference in Section 215.105. For gasoline-oxygenate blends which contain water-extractable oxygenates, the Reid vapor pressure shall be measured using the dry method test.
- f) The ethanol content of ethanol blend gasolines shall be determined by use of one of the approved testing methodologies specified in 40 CFR 80, Appendix F, incorporated by reference in Section 215.105.
- g) Any alternate to the sampling or testing methods or procedures contained in subsections (d), (e), and (f) must be approved by the Agency which shall consider data

comparing the performance of the proposed alternative to the performance of one or more approved test methods or procedures. Such data shall accompany any request for Agency approval of an alternate test procedure.

h) Each refiner or supplier that distributes gasoline or ethanol blends shall:

- 1) During the regulatory control period, document and clearly designate state that the Reid vapor pressure of all gasoline or ethanol blends leaving the refinery or distribution facility for use in Illinois complies with the Reid vapor pressure limitations set forth in Section 215.585(b) and (c). Any facility receiving this gasoline shall be provided with a copy of the accompanying document specifying the Reid vapor pressure on invoice, bill of lading, or other documentation used in normal business practice stating that the Reid vapor pressure of the gasoline complies with the State Reid vapor pressure standard.
- 2) Maintain records for a period of two years at least one year on the Reid vapor pressure, quantity shipped and date of delivery of any gasoline or ethanol blends leaving the refinery or distribution facility for use in Illinois. The Agency shall be provided with copies of such records, if requested.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the \_\_\_\_\_ day of \_\_\_\_\_, 1990 by a vote of \_\_\_\_\_.

Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board