

State of California  
Air Resources Board

Resolution 81-65

October 21, 1981

Agenda Item No: 81-21-1

WHEREAS, Health and Safety Code Sections 39003 and 39500 provide that the Air Resources Board (the "Board") is the state agency responsible for coordinating efforts to attain and maintain ambient air quality standards and for coordinating, encouraging, and reviewing the efforts of all levels of government as they affect air quality;

WHEREAS, Health and Safety Code Section 39002 provides that local and regional authorities have primary responsibility for control of air pollution from all sources other than vehicular sources, but that the Board shall, after holding public hearings, undertake control activities in any area wherein it determines that the local or regional authority has failed to meet the responsibilities given to it by Health and Safety Code, Division 26, or by any other provision of law;

WHEREAS, Health and Safety Code Sections 39600 and 39605 authorize the Board to do such acts as may be necessary for the proper execution of its powers and duties;

WHEREAS, Health and Safety Code Section 39602 specifically designates the Board as the air pollution control agency for all purposes set forth in federal law and designates the Board as the state agency responsible for the preparation of the State Implementation Plan (SIP) required by the Clean Air Act (42 U.S.C. Sections 7401, et seq.);

WHEREAS, Health and Safety Code Section 40440 requires the Board of the South Coast Air Quality Management District (SCAQMD) to adopt rules and regulations that reflect the best available technological and administrative practices;

WHEREAS, Health and Safety Code Sections 41500, 41502, and 41504 provide that if after the review of the rules and regulations and programs submitted by a district pursuant to Sections 40704 and 41603 and after a public hearing, the Board finds that the rules and regulations or program of a district will not likely achieve and maintain the state's ambient air quality standards, the Board may establish rules and regulations it deems necessary to enable the district to achieve and maintain such ambient air quality standards;

WHEREAS, Health and Safety Code Section 41652 provides that if the Board finds that a locally approved nonattainment plan does not comply with the requirements of the Clean Air Act, the Board may adopt such revisions as necessary to comply with such requirements;

WHEREAS, Clean Air Act Sections 110(a)(2) and 172(a)(1) require that the SIP provide for the attainment of national ambient air quality standards as expeditiously as practicable, and Section 172(b)(2) requires the SIP to provide for the implementation of all reasonably available control measures as expeditiously as practicable;

WHEREAS, SCAQMD Rule 1113 adopted on September 2, 1977, was included as a baseline control measure in the 1979 SIP submittal to the US Environmental Protection Agency (EPA) pursuant to Section 172 of the Clean Air Act, for which emission reduction credit for volatile organic compounds (VOC) was claimed, and was approved for inclusion in the SIP by the EPA on March 28, 1979 (44 Federal Register 61, page 1849);

WHEREAS, the SCAQMD has not attained the national and state ambient air quality standards for ozone and oxidant respectively, and is designated as a nonattainment area for ozone;

WHEREAS, the SCAQMD Board, at its July 3, 1981 hearing, reduced the effectiveness of Rule 1113 below that achievable with reasonably available control technology;

WHEREAS, SCAQMD Rule 1113, as amended on July 3, 1981, does not contain provisions as stringent as control measures adopted by other districts in the state;

WHEREAS, a Technical Review Group (TRG) consisting of representatives of local air pollution control districts, EPA, and the ARB have developed a suggested control measure to limit the solvent content of architectural coatings based on several years of thorough investigation of the feasibility of reducing solvent content;

WHEREAS, the TRG has reexamined on the basis of presently available evidence the feasibility of meeting limitations of solvent of 350 grams per liter for interior nonflat and 250 grams per liter for interior flat and for all exterior coatings, and has reaffirmed its conclusion that these limitations are now feasible;

WHEREAS, the Board has received testimony from numerous coating manufacturers that they possess the ability to produce nonflat or enamel paints that will perform well and yet conform to a limitation of 380 grams of VOC per liter;

WHEREAS, the Board has received testimony that for most uses most manufacturers provide water-based nonflat paints that perform well and have the benefit of much lower emissions of VOC than occur with the use of solvent-based products;

WHEREAS, the Board has received testimony indicating that progress is being made to develop water-based nonflat paints that perform well in all applications, and that some manufacturers have produced products that appear fully competitive with conventional solvent-based products;

WHEREAS, representatives of the paint industry have agreed to participate in a task force to identify uses where water-based nonflat products cannot provide adequate performance, and to advise the Board and districts of any further changes to the rule that it deems appropriate; and

WHEREAS, the Board finds:

That emissions of VOC associated with the use of architectural coatings in the South Coast Air Basin (SCAB) are an important source of ozone precursors in the basin and in 1979 accounted for approximately 90 tons per day of emissions of VOC during the smog season, or 12 percent of the emissions of VOC from stationary sources, and that these emissions also contribute significantly to the formation of photochemically generated particulate matter;

That the state and national ambient air quality standards for oxidant, ozone, and suspended particulate matter are widely and frequently violated in the SCAB and further emission reductions of VOC are needed to attain and maintain these standards;

That the TRG has determined that reasonably available control technology exists to produce architectural coatings with lower solvent contents than those required by the amendments made to Rule 1113 on July 3, 1981, by the SCAQMD Board and that several of the districts represented on the TRG are successfully implementing rules that conform with the TRG recommendation;

That the technology to produce interior nonflat architectural coatings which comply with a 350 grams per liter solvent content limitation is generally available and that for exterior application water-based coatings that comply with a 250 grams per liter solvent limitation generally outperform solvent-based coatings;

That locally based architectural coating manufacturers who supply a substantial portion of the coatings used in the SCAQMD are presently experiencing difficulties in manufacturing interior nonflat coatings which comply with a 350 grams per liter solvent content or exterior nonflat coatings which comply with a 250 grams per liter solvent content, but are presently able to manufacture coatings with a 380 grams per liter solvent content;

That immediate implementation in the SCAQMD of the limits recommended by the TRG would result in severe financial hardship for some manufacturers in the SCAQMD and would likely result in some product unavailability in the SCAQMD;

That the technology to produce high quality solvent-based nonflat paints with VOC levels at or below 380 grams per liter is available;

That based on the facts set forth in this resolution, SCAQMD Rule 1113, as amended on July 3, 1981, will not meet and does not comply with the requirements of the Clean Air Act in that the rule:

Does not require that architectural coatings used in the SCAB reflect reasonably available control technology;

Would seriously compromise the ability of the SIP to provide for the attainment and maintenance of national ambient air quality standards for ozone in the SCAB;

Is less stringent than and inconsistent with SIP provisions adopted by the SCAQMD Board and approved by the Environmental Protection Agency;

Does not contain legally enforceable requirements which provide for attainment of national ambient air quality standards as expeditiously as practicable;

That the amendments to SCAQMD Rule 1113 adopted by this resolution will result in substantially lower emissions of VOC in the SCAB than under the Rule as amended July 3, 1981;

That SCAQMD Rule 1113 as amended by this resolution is technologically feasible and economically reasonable;

That the amendments to SCAQMD Rule 1113 adopted by this resolution are necessary to comply with the requirements of the Clean Air Act in that Rule 1113 as amended July 3, 1981, does not provide for the attainment of national ambient air quality standards as expeditiously as practicable and does not reflect reasonably available control technology;

That SCAQMD Rule 1113 as amended July 3, 1981, will not provide emission reductions needed to achieve and maintain the state ambient air quality standards in the SCAB;

That SCAQMD Rule 1113 as amended July 3, 1981, does not reflect the best available technologies and administrative practices; and

That the amendments to SCAQMD Rule 1113 adopted by this resolution are necessary to enable the SCAQMD to achieve and maintain the state ambient air quality standards.

NOW, THEREFORE, BE IT RESOLVED that Rule 1113 of the SCAQMD is hereby amended, effective December 31, 1981, as set forth in Attachment A.

BE IT FURTHER RESOLVED that the Executive Officer is directed to submit Rule 1113 as amended October 21, 1981, to EPA as a revision to California's state implementation plan.

BE IT FURTHER RESOLVED that the Board staff shall seek the cooperation of the Technical Review Group to establish a task force which includes a chairperson with acknowledged technical expertise concerning architectural coatings, four representatives of local air pollution control districts, one of whom shall be a representative of the SCAQMD and one of whom shall be a representative of the BAAQMD, three representatives of the paint industry, one representative of painting contractors and one member of the Board, to evaluate the performance of water-based nonflat paints and to make initial recommendations to the Board and the districts via the Technical Review Group prior to September 30, 1982, on modifications to district rules to allow the continued use of solvent-based products in those applications where the performance of water-based products is found to be inadequate.

I hereby certify that this is  
a true and correct copy of  
Resolution 81-65, as adopted by the  
Air Resources Board.

  
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Sally Rump, Board Secretary

Attachment A

SCAQMD Rule 1113

(As Revised by The Air Resources Board on October 21, 1981)

- (a)(1) A person shall not sell, offer for sale, or apply any architectural coating manufactured after December 31, 1981, which, at the time of sale or manufacture:
- (A) contains more than 250 grams of volatile organic compounds per liter of coating (2.08 pounds per gallon), excluding any colorant added to tint bases, except as provided in section (a)(2); or
  - (B) is recommended for use as a bituminous pavement sealer unless it is an emulsion-type coating.
- (2) The provisions of section (a)(1) shall not apply to any architectural coating which, at the time of sale or manufacture:
- (A) contains no more than 380 grams of volatile organic compounds per liter of coating (3.17 pounds per gallon), excluding colorant added to tint bases, is defined as a nonflat coating, and is manufactured prior to September 2, 1983; or
  - (B) contains no more than 450 grams of volatile organic compounds per liter of coating (3.75 pounds per gallon), excluding colorant added to tint bases, is defined as a nonflat coating, and is manufactured by a small business prior to September 2, 1984.

- (b) The provisions of section (a) of this rule shall not apply to architectural coatings sold in this district for shipment outside of this district or for shipment to other manufacturers for repackaging.
- (c) The provisions of section (a)(2)(B) of this rule shall apply only to businesses which meet the criteria for a small business and have qualified for and maintained a small business exemption.
  - (1) A "Small Business" for the purpose of this rule is limited to a business which in 1976 sold less than 500,000 gallons of paints and coatings.
    - (A) A business shall not qualify for this exemption if it would not be considered a small business, as defined in Subsection (1) of Section 1896 of Title 2 of the California Administrative Code.
    - (B) A business shall not qualify for this exemption if its total annual sales volume of solvent-based paints and coatings which are not exempt from this rule exceeds by more than 10 percent the business's total sales volume of such coatings in calendar year 1976.
    - (C) In order to maintain an exemption beyond December 31, 1983, a business granted an exemption pursuant to this section shall, before the end of each calendar quarter, commencing with the quarter beginning October 1, 1983, file with the Executive Officer reports which demonstrate that it will be able to manufacture

coatings that will comply with the provisions of this rule by September 2, 1984. The reports must describe with specificity the steps which the business has undertaken and will undertake to manufacture complying coatings, and the timing of such steps.

- (2) To qualify and maintain a small business exemption, a business requesting such exemption shall file an annual request in writing with the Executive Officer prior to April 1st of each year. The business shall provide the Executive Officer any necessary information including, but not limited to:
- (A) total volume (in gallons) of paints and coatings sold in 1976;
  - (B) the number of persons employed;
  - (C) the gross sales receipts (in dollars) for 1976;
  - (D) total annual sales volume for 1976 and any subsequent year of paints and coatings which are not exempt from this rule; and
  - (E) other information necessary to document that the business is not an affiliate of another business concern which would not be considered a small business for the purposes of this rule shall also be provided by the Executive Officer.



(3) The Executive Officer, after considering information submitted by the business concern, shall determine whether such concern qualifies as a small business as defined in subsection (1) of this section and shall inform the business concern of this determination in writing.

(d) The provisions of section (a) shall not apply to the following coatings manufactured prior to September 2, 1983.

- (1) architectural coatings supplied in containers having capacities of one liter or less;
- (2) traffic coatings applied to public streets and highways; however, this exemption shall not extend to traffic coatings applied to other surfaces, including but not limited to curbs, berms, driveways and parking lots.
- (3) architectural coatings recommended by the manufacturer for use solely as a:
  - (A) varnish, lacquer, or shellac
  - (B) semitransparent stain
  - (C) opaque stain on bare redwood, cedar, mahogany, and douglas fir
  - (D) primer, sealer, or undercoater
  - (E) wood preservative
  - (F) fire retardant coating
  - (G) tile-like glaze coating

- (H) waterproofing coating, except bituminous pavement sealers
  - (I) industrial maintenance finish
  - (J) metallic pigmented coatings
  - (K) swimming pool coating
  - (L) graphic arts coatings
  - (M) mastic coatings
  - (N) multicolored coatings
- (e) Containers for all coatings subject to section (a) shall display the date of manufacture of the contents or a code indicating the date of manufacture. The manufacturers of such coatings shall file with the Executive Officer of the District and the Executive Officer of the Air Resources Board prior to September 2, 1981, an explanation of each code.
- (f) If anywhere on the coating container, or any sticker or label affixed thereto, or in any sales or advertising literature any indication is given that the coating may be used or is suitable for use for any purpose other than those specifically provided for in section (d) of this rule, then the exemption provided for in said section (d) shall not apply to that coating.
- (g) In any instance where more than one of the standards set forth in section (a) of this rule may be applicable, the most restrictive standard shall apply.
- (h) A person shall not use, sell or offer for sale for use in the District, in containers of 0.94 liter (one quart) capacity or larger, any architectural coating containing photochemically

reactive solvent. The provisions of this subsection shall not apply to those coatings in compliance with section (a) of this rule.

(i) A person shall not thin or dilute any architectural coating with a photochemically reactive solvent. The provisions of this subsection shall not apply to those coatings in compliance with section (a) of this rule.

(j) Definitions

For the purpose of this rule, the following definitions shall apply.

(1) Architectural Coatings

Any coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs.

(2) Bituminous Coatings Materials

Black or brownish materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude petroleum oils, or of flow grades of coal.

(3) Fire Retardant Coatings

(A) coatings which reduce rate of flame spread on the surface of a material to which such a coating has been applied, or

(B) resist ignition when exposed to high temperature, or

(C) insulate a substrate to which such a coating has been applied and prolong the time required to reach ignition temperature.

(4) Flat Coatings

Coatings which register gloss less than 15 on an 85° meter or less than five on a 60° meter, or which is labeled as a flat coating.

(5) Graphic Arts Coatings

Coatings which are marketed solely for application to indoor and outdoor signs and include lettering enamels, poster colors and bulletin colors.

(6) Industrial Maintenance Finishes

High performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.

(7) Mastic Coatings

Weatherproofing coatings which are formulated to cover holes, minor cracks, and conceal surface irregularities, and which are applied in thicknesses of at least 15 mils.

(8) Metallic Pigmented Paints

Non-bituminous coatings which are formulated with metallic pigment.

(9) Multi-colored Coatings

Coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat.

(10) Non-flat Coatings

Coatings which register gloss of 15 or greater on an 85° meter or five or greater on a 60° meter, and which is identified on the label as a gloss, semigloss, or eggshell enamel coating.

(11) Opaque Stains

All stains that are not classified as semitransparent stains.

(12) Primers

Coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats.

(13) Sealers

Coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrates.

(14) Semitransparent Stains

Coatings which are formulated to change the color of a surface but not conceal the surface.

(15) Tile-like Glaze Coatings

Coatings which are formulated to provide a tough, extrudable coating system, which are applied as a continuous (seamless) high-build film and which cure to a hard glaze finish.

(16) Undercoaters

Coatings which are designed to provide a smooth surface for subsequent coats.

(17) Varnishes, Lacquers, and Shellacs

Coatings which contain resins and binders but not opaque pigments and which are specifically formulated to form a transparent or translucent solid protective film.

(18) Volatile Organic Compounds (VOC)

Compounds of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, methane, 1,1,1-trichloroethane, methylene chloride, and trichlorotrifluoroethane.

(19) Waterproofing Coating

Coatings which are formulated for the sole purpose of preventing penetration of the substrate by water. These coatings include, but are not limited to, bituminous roof and resilient type coatings.

(20) Wood Preservatives

Coatings which are formulated for the purpose of protecting exposed wood from decay and insect attack. These coatings perform their function by penetrating into the wood.

State of California  
Air Resources Board

Response to Significant Environmental Issues

Item: Public Hearing to Further Consider Amendments to Rule 1113 of the South Coast Air Quality Management District Limiting the Solvent Content of Architectural Coatings.

Agenda Item No.: 81-21-1

Public Hearing Date: October 21, 1981

Response Date: October 21, 1981

Issuing Authority: Air Resources Board

Comment: The South Coast Air Quality Management District and several other commenters claimed that the rules as proposed would result in increased VOC emissions.

Response: The evidence does not support this claim. The amended rule will reduce VOC emissions compared to the July 3, 1981 rule. The South Coast District testified October 21 that the amendments as adopted would not result in increased emissions.

Comment: Staff and a member of the public raised a concern about the possible environmental effects of a provision in the rule as adopted July 3, 1981, which is unaltered by the Board's action. This provision exempts certain solvents of low photochemical reactivity (1,1,1-trichloroethane, methylene chloride and trichlorotrifluoroethane) which are under study for possible toxic effects.

Response: In the course of investigating this issue staff has reached the conclusion that because of cost considerations it is unlikely that these compounds will be used in the architectural type coatings currently regulated and therefore it is not expected that a significant adverse environmental effect will result from their exemption. If evidence arises which demonstrates an increase in the use of these solvents, the South Coast District can consider eliminating the exemption.

CERTIFIED:

Sally Rump  
Board Secretary

Date:

10/28/81