California Environmental Protection Agency

Air Resources Board

Initial Statement of Reasons for a Proposed Statewide Regulation to Reduce Volatile Organic Compound Emissions from Aerosol Coating Products and Amendments to the Alternative Control Plan for Consumer Products

APPENDICES

Release Date:
February 3, 1995

APPENDIX A:

SECTION 41712 OF THE CALIFORNIA CLEAN AIR ACT AMENDMENTS

taking into account the age and physical condition of the affected vessels, vessel safety and operational requirements, and technological feasibility.

Following completion of such study, the state board shall conduct a public hearing to consider and, if appropriate, adopt a compliance schedule by which various classes of vessels will be brought into compliance with the standards specified in Section 41701 on and after January 1, 1984. Prior to taking any action to adopt any such compliance schedule, the state board shall report the results of its study to the Legislature, and in no event shall such study be filed with the Legislature later than January 1, 1983. The report shall also address emissions from diesel powered vessels.

(Added by Stats. 1978, Ch. 1131.)

41705. Section 41700 shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

(Added by Stats. 1975, Ch. 957.)

41706. (a) The Legislature hereby finds and declares that recent evidence indicates that lead compounds emitted into the air by nonvehicular sources accumulate in and upon vegetation in the vicinity of such sources, pose a grave threat to the health of animals which consume such vegetation, and constitute a potential human health hazard.

(b) Every district shall establish emission standards for lead compounds emitted into the air from nonvehicular sources. Where a district has failed to establish such standards, the state board shall establish such standards for that district.

(Added by Stats. 1975, Ch. 957.)

41707. Notwithstanding the provisions of this chapter restricting burning, the state board, after consultation with the district in which the burning is to take place, may issue permits for experimental burning designed to develop new or improved techniques of burning to reduce emissions, except that no experimental burning may create a nuisance.

(Added by Stats. 1975, Ch. 957.)

41708. Any district may adopt a rule or regulation for the control of volatile organic compound emissions from cutback asphalt paving material based on local considerations, including, but not limited to, the degree of air pollution resulting from such paving material, the economic impact of the rule and regulation, and the feasibility of implementing the rule and regulation.

The state board shall not override or otherwise amend any action taken by a district relating to the use of cutback asphalts.

(Added by Stats. 1979, Ch. 967.)

41712. (a) The state board shall adopt regulations to achieve the maximum feasible reduction in reactive organic compounds emitted by consumer products, if the state board determines that adequate data exists for it to adopt the regulations.

(b) The state board shall not adopt regulations pursuant to subdivision (a) unless the regulations are technologically and commercially feasible, and necessary to carry out this division. The state board shall consider the effect that the regulations proposed for health benefit products will have on the efficacy of those products in killing or inactivating agents of infectious diseases such as viruses, bacteria, and fungi, and the impact the regulations will have on the availability of health benefit products to California consumers.

(c) For purposes of this section, a "consumer product" means a chemically formulated product used by household and institutional consumers, including, but not limited to, detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products; but does not include other paint products, furniture coatings, or architectural coatings.

(d) (1) Prior to adopting regulations pursuant to this section governing health benefit products, including, but not limited to, disinfectants, the state board shall consider any recommendations received from federal, state, or local public health agencies and medical experts in the field of public health.

(2) Within 30 days after the adoption of any regulation pursuant to this section governing health benefit products, the state board shall prepare and submit to the Legislature and the Governor a report which summarizes any recommendations received pursuant to paragraph (1) and any conclusions made by the state board concerning the recommendations.

(3) For purposes of this subdivision, the following definitions apply:

(A) "Health benefit product" means an antimicrobial product registered with the Environmental Protection Agency.

(B) "Medical expert" means a physician, including a pediatrician, a microbiologist, or a scientist involved in research related to infectious disease and infection control.

(e) A district shall adopt no regulation relating to a consumer product which is different than any regulation adopted by the state board for that purpose.

(f) (1) It is the intent of the Legislature that air pollution control standards affecting the formulation of aerosol paints and limiting the emissions of reactive organic compounds resulting from the use of aerosol paints be set solely by the state board to ensure uniform standards applicable on a statewide basis. A district shall not adopt or enforce any regulation regarding the reactive organic compound content of, or emissions from, aerosol paints until such time as the state board has adopted a regulation regarding those paints, and any district regulation shall not be different than the state board regulation. A district may observe and enforce a state board regulation regarding aerosol paints in the same manner as a district regulation limiting the issuance of air contaminants. This subdivision shall not apply to any district that has adopted a rule or regulation regarding aerosol paints pursuant to an order of a federal court,

until such time as the federal court has authorized the district to observe and enforce the state board regulation in lieu of the district regulation.

(2) On or before January 1, 1995, the state board shall adopt regulations requiring the maximum feasible reduction in reactive organic compounds emitted from the use of aerosol paints. The regulations shall establish final limits and require full compliance not later than December 31, 1999, and shall establish interim limits prior to that date resulting in reductions in reactive organic compounds. For the purposes of this subdivision, "maximum feasible reduction in reactive organic compounds emitted" means at least a 60 percent reduction in the emissions of reactive organic compounds resulting from the use of aerosol paints, calculated with respect to the 1989 baseline year.

(3) On or before December 31, 1998, the state board shall conduct a public hearing on the technological or commercial feasibility of achieving full compliance with the final limits by December 31, 1999. If the state board determines that a 60 percent reduction in emissions of reactive organic compounds from the use of aerosol paints is not technologically or commercially feasible by December 31, 1999, it may grant an extension of time not to exceed five years. During any such extension of time, the most stringent interim limits shall be applicable. Any regulation adopted by the state board shall include a provision authorizing the time extension and requiring a public hearing on technological or commercial feasibility consistent with this subdivision. The state board shall seek to ensure that the final limits for aerosol paints established pursuant to this subdivision do not become federally enforceable prior to the effective date established by the state board for these limits, including any extension granted under this subdivision.

(4) Reductions required for aerosol paints under this subdivision are not intended to apply to any other consumer product and the regulation of aerosol paints is not subject to subdivision (b).

(Amended by Stats. 1993, Ch. 1028, Sec. 7. Effective January 1, 1994.)

References at the time of publication (see page iii):

Regulations: 17, CCR, sections 94500, 94503.5-94517

Article 2. Nonagricultural Burning

(Article 2 added by Stats. 1975, Ch. 957.)

41800. Except as otherwise provided in this chapter, no person shall use open outdoor fires for the purpose of disposal or burning of petroleum wastes, demolition debris, tires, tar, trees, wood waste, or other combustible or flammable solid or liquid waste; or for metal salvage or burning of motor vehicle bodies.

(Added by Stats. 1975, Ch. 957.)

41801. Nothing in this article shall be construed as limiting the authority granted under other provisions of law to any public officer to set or permit a

APPENDIX B:

BAY AREA AIR QUALITY MANAGEMENT DISTRICT'S REGULATION 8, RULE 49, AEROSOL PAINT PRODUCTS

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REGULATION 8
ORGANIC COMPOUNDS
RULE 49
AEROSOL PAINT PRODUCTS
(ADOPTED JUNE 20, 1990)

8-49-100 GENERAL

8-49-101 Description: The purpose of this rule is to limit emissions of organic compounds from the use of hand-held aerosol paint products.

8-49-110 Exemption, Non-Paint Aerosol Products: The provisions of this rule shall not apply to aerosol lubricants, mold releases, asphaltic automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, dyes or inks. (Adopted August 21, 1991)

8-49-111 Exemption, Shipment and Use Outside District: The provisions of this rule shall not apply to aerosol coatings sold, manufactured or warehoused in the District for shipment and use outside of the District. (Adopted August 21, 1991)

8-49-200 DEFINITIONS

8-49-201 Aerosol: A suspension of solid or liquid particles in a gas.

8-49-202 Aerosol Paint Product: A mixture of pigments, resins, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application.

8-49-203 Organic Compound, Non-Precursor: Methylene chloride, 1,1,1-trichloroethane, 1,1,2-trichlorotrifluoroethane (CFC-113), trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), dichlorotetrafluoroethane (CFC-114) chloropentafluoroethane (CFC-115), chlorodifluoromethane (HCFC-22), trifluoromethane (HFC-23), dichlorotrifluoroethane (HCFC-123), tetrafluoroethane (HFC-134a), dichlorofluoroethane (HCFC-141b), chlorodifluoroethane (HFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1-trifluoroethane (HFC-143a), and 1,1-difluoroethane (HFC-152a). (Amended August 21, 1991)

8-49-204 Organic Compound, Precursor: Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate, excepting the non-precursor organic compounds listed in Section 8-49-203.

8-49-205 Solids: The non-volatile portion of an aerosol paint product, consisting of the film-forming ingredients (pigments and resins).

8-49-206 Paint: A mixture of pigments, resins, and liquid solvents which can be applied to a surface to form a thin and closely adherent coating. For the purposes of this regulation, this definition shall include but shall not be limited to clear coatings, primers, metallic coatings, and wood stains.

8-49-207 Propellant: A liquified or compressed gas which expels the contents of a container when the pressure is released.

8-49-208 Art Varnish: A coating labelled exclusively as such which provides a protective sealant for oil paintings or other closely related art uses. (Adopted August 21, 1991)

8-49-209 Auto Body Primer: A heavily pigmented automotive primer or primer surfacer coating labelled exclusively as such and applied directly to a an uncoated vehicle body substrate or on top of a precoat for purposes of corrosion resistance,

building a repair area to a condition in which it, after drying, can be sanded to a smooth surface. (Adopted August 21, 1991)

8-49-210 Automotive Bumper and Trim Products: Coatings formulated and labelled exclusively as such which are used to repair and refinish automotive bumpers and plastic trim parts including adhesion promoters and chip sealants. (Adopted August 21, 1991)

8-49-211 Aviation Propeller Coating: An epoxy coating formulated and labelled exclusively as such which provides abrasion resistance and corrosion protection for aircraft propellers. (Adopted August 21, 1991)

8-49-212 Aviation Zinc Primer: Zinc chromate or zinc oxide coatings formulated to military specification MIL-P-8989 and labelled exclusively as such. (Adopted 8/2191)

8-49-213 Clear Coating: A coating which is colorless, containing binders but no pigment, and which is formulated to form a transparent or translucent solid film. (Adopted August 21, 1991)

8-49-214 Corrosion Resistant Brass/Bronze/Copper Coating: A clear coating formulated and labelled exclusively as such to prevent tarnish and corrosion of brass, bronze and copper surfaces. (Adopted August 21, 1991)

8-49-215 Enamel: A coating which cures by chemical cross-linking of its base resin. Enamels can be readily distinguished from lacquers because enamels are not resoluble in their original solvent. (Adopted August 21, 1991)

8-49-216 Engine Paint: A coating, labelled exclusively as such, applied to the exterior surface of motor vehicle engine blocks or components attached to a motor vehicle engine. The cans shall be labelled with the Original Equipment Manufacturer's (O.E.M.) part number. (Adopted August 21, 1991)

8-49-217 Exact Match Finish, Automotive: A topcoat labelled exclusively as such, which is formulated to exactly match the color of the original, factory-applied automotive finish coating during touch-up or minor repair operations. The cans shall be labelled with the Original Equipment Manufacturer's (O.E.M.) part number. Can contents shall not exceed six ounces by weight if offered for retail sale. (Adopted August 21, 1991)

8-49-218 Exact Match Finish, Industrial: A coating which is formulated to exactly match the color of an original, factory-applied industrial coating. The cans shall be labeled with the manufacturer's name for which they were formulated, and with the Original Equipment Manufacturer's (O.E.M.) part number. This category applies primarily to touch-up of manufactured products prior to shipment or during initial installation; retail sales will be allowed through authorized O.E.M. dealers only. (Adopted August 21, 1991)

8-49-219 Flat Paint Products: A coating which, when fully dry, has a gloss of 5 or less on a 60^{0} meter. (Adopted August 21, 1991)

8-49-220 Floral Spray: A coating labelled exclusively as such, which is sprayed on fresh flowers for the purpose of preserving and protecting their appearance. (Adopted August 21, 1991)

8-49-221 Fluorescent Coating: A coating labelled as such which converts absorbed incident light energy into emitted light of a different hue. (Adopted August 21, 1991)

8-49-222 Glass Coating: A coating labelled exclusively as such, which is applied to glass to tint or darken the color of the glass while retaining transparency. (Adopted August 21,1991)

8-49-223 Ground Traffic/Marking Coating: A coating used to delineate vehicular or pedestrian traffic flow in a manufacturing facility or on a public highway, or to mark or define locations used by public utilities (e.g. gas, telephone, electric). (Adopted August 21, 1991)

8-49-224 High Temperature Coating: A coating labelled exclusively as such, which is formulated for and applied to substrates which will, in normal use, be subjected to temperatures in excess of 400°F. (Adopted August 21, 1991)

8-49-225 Hobby/Model/Craft Coating: A coating primarily for hobby applications. Can contents shall not exceed six ounces by weight. (Adopted August 21, 1991)

8-49-226 Lacquer: A thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and hence is resoluble in its original solvent. (Adopted August 21, 1991)

8-49-227 Marine Spar Varnish: A coating labelled exclusively as such which provides a protective sealant for marine wood products. (Adopted August 21, 1991)

8-49-228 Metallic Coating: A topcoat containing metallic particles which impart a metallic appearance when dry. (Adopted August 21, 1991)

8-49-229 Multi-Component Kits: Aerosol spray paint systems which require the application of more than one component (e.g. foundation coat and top coat), where both components are sold together in one package and neither is sold separately. (Adopted August 21, 1991)

8-49-230 Photographic Emulsion Coating: A coating formulated and labelled exclusively as such, applied to finished photographs to allow corrective retouching or protection of the image. (Adopted August 21, 1991)

8-49-231 Non-Flat Paint Products: A coating which, when fully dry, has a gloss of greater than 5 on a 60° meter. (Adopted August 21, 1991)

8-49-232 Primer: A coating formulated and labelled as such to be applied to a surface to provide a bond between that surface and subsequent coats. (Adopted August 21,1991)

8-49-233 Retail Sales: The sale of goods directly to a non-commercial consumer. For the purposes of this Rule, sales to jobbers and industrial end-users shall not be deemed retail sales. (Adopted August 21, 1991)

8-49-234 Shellac Sealer: A clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (Laccifer lecca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction. (Adopted August 21, 1991)

8-49-235 Slip-Resistant Epoxy Coating: An epoxy ester coating labelled exclusively as such which is formulated with synthetic grit, and used as a safety coating. (Adopted August 21, 1991)

8-49-236 Spatter Coating: A coating wherein spots, globules, or spatters of individual or contrasting colors appear on or within the surface of a contrasting or similar background. (Adopted August 21, 1991)

8-49-237 Vinyl/Fabric/Polycarbonate: A coating labelled exclusively as such, which is used exclusively to coat vinyl, fabric, or polycarbonate substrates. (Adopted August 21, 1991)

8-49-238 Webbing/Veiling Coating: A coating labelled exclusively as such, which is formulated to give a stranded or spider webbed appearance when applied. (Adopted August 21, 1991)

8-49-239 Weld-Through Primer: A coating formulated and labelled exclusively as such which provides a bridging or conducting effect to provide corrosion protection following welding. (Adopted August 21, 1991)

8-49-240 Wood Stain: A coating which is formulated to change the color of a wood surface but not conceal the surface. (Adopted August 21, 1991)

8-49-241 Wood Touch-Up/Repair/Restoration: A coating formulated and labelled exclusively as such which provides an exact color or sheen match on finished wood products. (Adopted August 21, 1991)

8-49-242 Workable Art Fixative: A clear coating formulated and labelled exclusively as such which provides protection for pencil, charcoal, chalk and pastel drawings, while providing a workable surface. (Adopted August 21, 1991)

8-49-243 Volatile Organic Compound (VOC): Any precursor or non-precursor organic compound which would be emitted during the use, application, curing or drying of an aerosol paint product. (Adopted August 21, 1991)

243.1 For the purposes of calculating the VOC content of an aerosol paint product, difluoroethane (HFC-152a) shall not be considered part of the aerosol paint product. (Adopted June 2, 1993)

8-49-300 STANDARDS

8-49-301 Limits: A person shall not sell, offer for sale, apply, solicit or manufacture for sale within the District any hand-held aerosol paint product with a VOC content in excess of the following limits, expressed as percent VOC by weight of product:

		VOC Limits (%)
301.1	General Coatings	
	Clear Coating	67
	Flat Paint Products	60
	Fluorescent	65
	Ground Traffic Marking Coating	66
	Metallic Coating	80
	Non-Flat Paint Products	65
	Primer 60	
301.2	Specialty Coatings	
301.2.1	Specialty Clear and Tinted Coatings	
	Corrosion Resistant Brass/Bronze/Copper Coating	92
	Photographic Emulsion Coating	95
	Art Varnish	92
	Marine Spar Varnish	92
	Vinyl/Fabric/Polycarbonate	95
	Webbing/Veiling Coating	95
	Wood Stain	95
	Workable Art Fixative	95
301.2.2	Exact Match Finish	
	Engine Enamel	80
	Automotive	88
	Industrial	88
301.2.3	Miscellaneous Coatings	
	Auto Body Primer	80
	High Temperature Coating	80
	Hobby/Model/Craft Coatings	
	Enamel	80
	Lacquer	88
	Clear, Metallic	95
	Shellac Sealer	
	Clear	88
	Pigmented	75
	Spatter Coating	80

301.3	Non-Retail Specialty Coatings	
	Automotive Bumper and Trim Products	95
	Aviation Propeller Coating	84
	Aviation Zinc Primer	82
	Floral Spray	95
	Glass Coating	95
	Slip-Resistant Epoxy Coating	85
	Weld-Through Primer	75
	Wood Touch-up/Repair/Restoration	95

(Amended August 21, 1991)

8-49-302 Prohibition of Non-Intended Use: A person shall not use within the District any coating subject to the standards of Section 8-49-301 for any use other than that shown on the product label. (Adopted August 21, 1991)

8-49-303 Multi-Component Applications: A person shall not sell, offer for sale, apply, solicit or manufacture for sale within the District any multi-component aerosol kit as defined in Section 8-49-229 unless the total VOC emitted from the use of that multi-component kit does not exceed the VOC which would be allowed from a single-component product in the same specialty category listed in Section 8-49-301. (Adopted August 21, 1991)

8-49-304 Prohibition of Retail Sale: If any coating subject to the VOC limitations of Section 8-49-301.3, Non-Retail Specialty Coatings is offered for retail sale to the general public, that coating shall be subject to the VOC standards in Section 8-49-301.1, General Coatings. Retail sale of exact match industrial coatings will be allowed through authorized Original Equipment Manufacturer (O.E.M.) dealers only. (Adopted August 21, 1991)

8-49-305 Interim Limit: Until July 1, 1992 any product which has been reformulated to meet the 2.0 grams VOC/grams solid limit (67%) in effect June 20, 1990 shall be legal for manufacture, sale and use within the District, provided the requirements of Section 8-49-403 are met. (Adopted August 21, 1991)

8-49-400 ADMINISTRATIVE REQUIREMENTS

8-49-401 Labeling Requirements: Each container of any aerosol paint product subject to this rule manufactured for sale, sold or offered for sale within the District shall be permanently and exclusively labeled (e.g. "for automotive use only") by coating type and shall display the maximum organic compound content expressed as % VOC as determined under Section 8-49-601.

(Amended August 21, 1991)

8-49-402 Duplicate Specification Standards: If anywhere on the container of any aerosol paint product listed in section 8-49-301, or on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as a product for which a lower VOC standard is specified, then the lowest applicable VOC standard shall apply. (Adopted August 21, 1991)

8-49-403 Reformulated Product Petitioning Requirement: Any person seeking to meet the interim limit pursuant to Section 8-49-305 shall petition the APCO in writing. The petition shall contain the following information:

403.1 Date of product reformulation

403.2 VOC of product prior to reformulation

403.3 Average monthly sales data of product in the Bay Area immediately prior to and subsequent to reformulation

403.4 Earliest expected date of reformulation to current VOC standards

(Adopted August 21, 1991)

8-49-500 MONITORING AND RECORDS

8-49-501 Recordkeeping Requirements: Each person who manufactures hand-held aerosol paint products for sale in the District shall maintain sales data by category and organic compound content expressed as % VOC by weight. These data shall be submitted to the APCO every three months. The first sales data shall be due October 31, 1991; subsequent reports shall be due at three month intervals.

(Amended August 21, 1991)

8-49-600 MANUAL OF PROCEDURES

8-49-601 Determination of Compliance, Hand-Held Aerosol Paint Products: The means by which compliance of hand-held aerosol paint products is determined are found in the Manual of Procedures, Volume III, Method 35 and 36.

(Amended August 21, 1991)

APPENDIX C:

PROPOSED AEROSOL PAINT REGULATION

DRAFT

REGULATION FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM AEROSOL COATING PRODUCTS

Add new Article 3, Aerosol Coating Products, sections 94520-94528, Title 17, California Code of Regulations, to read as follows:

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 3. Aerosol Coating Products

94520. Applicability

This article shall apply to any person who sells, supplies, offers for sale, applies, or manufactures aerosol coating products for use in the state of California, except as provided in section 94523.

NOTE: Authority cited: Section 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94521. Definitions

(a) For the purposes of this article, the following definitions apply:

(1) "Adhesive" means a product used to bond one surface to another.

(2) "Aerosol Coating Product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic/marking applications.

(3) "Anti-Static Spray" means a product used to prevent or inhibit the accumulation of static electricity.

(4) "Art Fixative or Sealant" means a clear coating, including art varnish, workable art fixative, and ceramic coating, which is designed and labeled exclusively for application to paintings, pencil, chalk, or pastel drawings, ceramic art pieces, or other closely related art uses, in order to provide a final protective coating or to fix preliminary stages of artwork while providing a workable surface for subsequent revisions.

(5) "ASTM" means the American Society for Testing and Materials.

(6) "Auto Body Primer" means an automotive primer or primer surfacer coating designed and labeled exclusively to be applied to a vehicle body substrate for the purposes of corrosion resistance and building a repair area to a condition in which, after drying, it can be sanded to a smooth surface.

(7) "Automotive Bumper and Trim Product" means a product, including adhesion promoters and chip sealants, designed and labeled exclusively to repair and refinish automotive bumpers and plastic trim parts.

(8) "Automotive Underbody Coating" means a flexible coating which contains asphalt or rubber and is designed and labeled exclusively for use on the underbody of motor vehicles to resist rust, abrasion and vibration, and to deaden sound.

(9) "Aviation Propeller Coating" means a coating designed and labeled exclusively to provide abrasion resistance and corrosion protection for aircraft propellers.

(10) "Aviation or Marine Primer" means a coating designed and labeled exclusively to meet federal specification TT-P-1757.

(11) "Belt Dressing" means a product applied on auto fan belts, water pump belting, power transmission belting, and industrial and farm machinery belting to prevent slipping, and to extend belt life.

(12) "Cleaner" means a product designed and labeled primarily to remove soil or other contaminants from surfaces.

(13) "Clear Coating" means a coating which is colorless, containing resins but no pigments except flatting agents, and is designed and labeled to form a transparent or translucent solid film.

(14) "Coating Solids" means the nonvolatile portion of an aerosol coating product, consisting of the film forming ingredients, including pigments and resins.

(15) "Commercial Application" means the use of aerosol coating products in the production of goods, or the providing of services for profit, including touch-up and repair.

(16) "Corrosion Resistant Brass, Bronze, or Copper Coating" means a clear coating designed and labeled exclusively to prevent tarnish and corrosion of uncoated brass, bronze, or copper metal surfaces.

(17) "Distributor" means any person to whom an aerosol coating product is sold or supplied for the purposes of resale or distribution in commerce, except that manufacturers, retailers, and consumers are not distributors.

(18) "Dye" means a product containing no resins which is used to color a surface or object without building a film.

(19) "Electrical Coating" means a coating designed and labeled exclusively as such, which is used exclusively to coat electrical components such as wire windings on electric motors to provide insulation and protection from corrosion.

(20) "Enamel" means a coating which cures by chemical cross-linking of its base resin and is not resoluble in is original solvent.

(21) "Engine Paint" means a coating designed and labeled exclusively to coat engines and their components.

(22) "Exact Match Finish, Engine Paint" means a coating which meets all of the following criteria: (1) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied engine paint; (2) the product is labeled with the manufacturer's name for which they were formulated; and (3) the product is labeled with one of the following: (i) the original equipment manufacturer's (O.E.M.) color code number; (ii) the color name; or (iii) other designation identifying the specific O.E.M. color to the purchaser.

(23) "Exact Match Finish, Automotive" means a topcoat which meets all of the following criteria: (1) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied automotive coating during the touch-up of automobile finishes; (2) the product is labeled with the manufacturer's name for which they were formulated; and (3) the product is labeled with one of the following: (i) the original equipment manufacturer's (O.E.M.) color code number; (ii) the color name; or (iii) other designation identifying the specific O.E.M. color to the purchaser. Not withstanding the foregoing, automotive clear coatings designed and labeled exclusively for use over automotive exact match finishes to replicate the original factory applied finish shall be considered to be automotive exact match finishes.

(24) "Exact Match Finish, Industrial" means a coating which meets all of the following criteria: (1) the product is designed and labeled exclusively to exactly match the color of an original, factory-applied industrial coating during the touch-up of manufactured products; (2) the product is labeled with the manufacturer's name for which they were formulated; and (3) the product is labeled with one of the following: (i) the original equipment manufacturer's (O.E.M.) color code number; (ii) the color name; or (iii) other designation identifying the specific O.E.M. color to the purchaser.

(25) "Executive Officer" means the Executive Officer of the Air Resources Board, or her or his delegate.

(26) "Flat Paint Products" means a coating which, when fully dry, registers specular gloss

less than or equal to 15 on an 85° gloss meter, or less than or equal to 5 on a 60° gloss meter, or which is labeled as a flat coating.

(27) "Flatting Agent" means a compound added to a coating to reduce the gloss of the coating without adding color to the coating.

(28) "Floral Spray" means a coating designed and labeled exclusively for use on fresh flowers, dried flowers, or other items in a floral arrangement for the purposes of coloring, preserving or protecting their appearance.

(29) "Fluorescent Coating" means a coating labeled as such, which converts absorbed incident light energy into emitted light of a different hue.

(30) "Glass Coating" means a coating designed and labeled exclusively for use on glass or other transparent material to create a soft, translucent light effect, or to create a tinted or darkened color while retaining transparency.

(31) "Ground Traffic/Marking Coating" means a coating designed and labeled exclusively to be applied to dirt, gravel, grass, concrete, asphalt, warehouse floors, or parking lots. Such coatings must be in a container equipped with a valve and sprayhead designed to direct the spray toward the surface when the can is held in an inverted vertical position.

(32) "High Temperature Coating" means a coating, excluding engine paint, which is designed and labeled exclusively for use on substrates which will, in normal use, be subjected to temperatures in excess of 400°F.

(33) "Hobby/Model/Craft Coating" means a coating which is designed and labeled exclusively for hobby applications and is sold in aerosol containers of 6 ounces by weight or less.

(34) "Ink" means a fluid or viscous substance used in the printing industry to produce letters, symbols or illustrations, but not to coat an entire surface.

(35) "Lacquer" means a thermoplastic film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and is resoluble in its original solvent.

(36) "Layout Fluid" (or toolmaker's ink) means a coating designed and labeled exclusively to be sprayed on metal, glass or plastic, to provide a glare-free surface on which to scribe designs, patterns or engineering guide lines prior to shaping the piece.

(37) "Leather preservative or cleaner" means a leather treatment material applied exclusively to clean or preserve leather.

(38) "Lubricant" means a substance such as oil, petroleum distillates, grease, graphite,

silicone, lithium, etc. that is used to reduce friction, heat, or wear when applied between surfaces.

(39) "Manufacturer" means any person who imports, manufactures, assembles, produces, packages, repackages, or relabels a consumer product.

(40) "Marine Spar Varnish" means a coating designed and labeled exclusively to provide a protective sealant for marine wood products.

(41) "Maskant" means a coating applied directly to a component to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching, or performing other chemical operations on the surface of the component.

(42) "Metallic Coating" means a topcoat which contains at least 0.5 percent by weight elemental metallic pigment in the formulation, including propellant, and is labeled as "metallic", or with the name of a specific metallic finish such as "gold", "silver", or "bronze."

(43) "Mold Release" means a coating applied to molds to prevent products from sticking to the surfaces of the mold.

(44) "Multi-Component Kit" means an aerosol spray paint system which requires the application of more than one component (e.g. foundation coat and top coat), where both components are sold together in one package.

(45) "Nonflat Paint Product" means a coating which, when fully dry, registers a specular gloss greater than 15 on an 85° gloss meter or greater then five on a 60° gloss meter.

(46) "Percent VOC By Weight" means the ratio of the weight of VOC to the total weight of the product contents expressed as follows:

Percent VOC By Weight = $(W_{VOC} / W_{total}) \times 100$

Where:

(i) for products containing no water and no volatile compounds exempt from the definition of VOC: W_{voc} = the weight of volatile compounds;

(ii) for products containing water or exempt compounds: W_{voc} = the weight of volatile compounds, less water, and less compounds exempt from the VOC definition in this section 94521; and

(iii) W_{total} = the total weight of the product contents.

(47) "Photograph Coating" means a coating designed and labeled exclusively to be applied to finished photographs to allow corrective retouching, protection of the image,

changes in gloss level, or to cover fingerprints.

(48) "Pleasure Craft" means privately owned vessels used for noncommercial purposes.

(49) "Pleasure Craft Finish Primer/Surfacer/Undercoater" means a coating designed and labeled exclusively to be applied prior to the application of a pleasure craft topcoat for the purpose of corrosion resistance and adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections.

(50) "Pleasure Craft Topcoat" means a coating designed and labeled exclusively to be applied to a pleasure craft as a final coat above the waterline and below the waterline when stored out of water. This category does not include clear coatings.

(51) "Primer" means a coating labeled as such, which is designed to be applied to a surface to provide a bond between that surface and subsequent coats.

(52) "Propellant" means a liquefied or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or any other material from the same self-pressurized container or from a separate container.

(53) "Responsible Party" means the company, firm, or establishment which is listed on the product's label. If the label lists two companies, firms or establishments, the responsible party is the party which the product was "manufactured for" or "distributed by", as noted on the label.

(54) "Retailer" means any person who sells, supplies, or offers aerosol coating products for sale directly to consumers.

(55) "Retail Outlet" means any establishment where consumer products are sold, supplied, or offered for sale, directly to consumers.

(56) "Rust Converter" means a product designed and labeled exclusively to convert rust to an inert material and which contains a minimum acid content of 0.5 percent by weight, and a maximum coating solids content of 0.5 percent by weight.

(57) "Shellac Sealer" means a clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (*Laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

(58) "Slip-Resistant Coating" means a coating designed and labeled exclusively as such, which is formulated with synthetic grit and used as a safety coating.

(59) "Spatter Coating/Multicolor Coating" means a coating labeled exclusively as such wherein spots, globules, or spatters of contrasting colors appear on or within the

surface of a contrasting or similar background.

(60) "Stain" means a coating which is designed and labeled to change the color of a surface but not conceal the surface.

(61) "Vinyl/Fabric/Leather/Polycarbonate Coating" means a coating designed and labeled exclusively to coat vinyl, fabric, leather, or polycarbonate substrates.

(62) "Volatile Organic Compound (VOC)" means any compound containing at least one atom of carbon, except: methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (HCFC-22), trifluoromethane (HFC-23), 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113), 1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123), 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1-trifluoroethane (HFC-143a), and 1,1-difluoroethane (HFC-152a), and the following classes of perfluorocarbons: (A) cyclic, branched, or linear, completely fluorinated alkanes; (B) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; (C) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and (D) sulfur-containing perfluorocarbons with no unsaturations and with the sulfur bonds only to carbon and fluorine.

(63) "Webbing/Veiling Coating" means a coating designed and labeled exclusively to provide a stranded to spider webbed appearance when applied.

(64) "Weld-Through Primer" means a coating designed and labeled exclusively to provide a bridging or conducting effect for corrosion protection following welding.

(65) "Wood Stain" means a coating which is formulated to change the color of a wood surface but not conceal the surface.

(66) "Wood Touch-Up/Repair/Restoration" means a coating designed and labeled exclusively to provide an exact color or sheen match on finished wood products.

(67) "Working Day" means any day between Monday through Friday, inclusive, except for days that are federal holidays.

NOTE: Authority cited: Section 39600, 39601, and 41712, Health and Safety Code.
Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94522. Standards and Requirements for Aerosol Coating Products

(a)(1) Except as provided in sections 94523 and 94525, no person shall sell, supply, offer for sale, apply, or manufacture for use in California, any aerosol coating product which, at the time of sale, use, or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards after the specified effective dates.

Table of Standards

Percent Volatile Organic Compounds by Weight[1]

Aerosol Coating Category	1/1/96	12/31/99
General Coatings		
Clear Coatings	67.0	40.0
Flat Paint Products	60.0	30.0
Fluorescent Coatings	75.0	45.0
Metallic Coatings	80.0	50.0
Nonflat Paint Products	65.0	30.0
Primers	60.0	30.0
Specialty Coatings		
Art Fixatives or Sealants	95.0	70.0
Auto Body Primers	80.0	50.0
Automotive Bumper and Trim Products	95.0	75.0
Aviation or Marine Primers	80.0	70.0
Aviation Propeller Coatings	84.0	75.0
Corrosion Resistant Brass, Bronze, or Copper Coatings	92.0	70.0
Exact Match Finishes:		
Engine Enamel	80.0	60.0
Automotive	88.0	60.0
Industrial	88.0	60.0
Floral Sprays	95.0	85.0
Glass Coatings	95.0	80.0
Ground Traffic/Marking Coatings	66.0	40.0
High Temperature Coatings	80.0	55.0

1 As specified in section 94522(c), for aerosol coating products containing methylene chloride, the VOC standards specified in this subsection (a) shall apply to the combined percent VOC and methylene chloride by weight.

Table of Standards

Percent Volatile Organic Compounds by Weight[1]

Aerosol Coating Category	1/1/96	12/31/99
Specialty Coatings (Cont'd)		
Hobby/Model/Craft Coatings:		
Enamel	80.0	70.0
Lacquer	88.0	70.0
Clear or Metallic	95.0	75.0
Marine Spar Varnishes	85.0	70.0
Photograph Coatings	95.0	70.0
Pleasure Craft Finish Primers Surfacers or Undercoaters	75.0	55.0
Pleasure Craft Topcoats	80.0	55.0
Shellac Sealers:		
Clear	88.0	70.0
Pigmented	75.0	60.0
Slip-Resistant Coatings	80.0	70.0
Spatter/Multicolor Coatings	80.0	60.0
Vinyl/Fabric/Leather/Polycarbonate	95.0	70.0
Webbing/Veil Coatings	90.0	70.0
Weld-Through Primers	75.0	60.0
Wood Stains	95.0	75.0
Wood Touch-Up,Repair or Restoration Coatings	95.0	75.0

1 As specified in section 94522(c), for aerosol coating products containing methylene chloride, the VOC standards specified in this subsection (a) shall apply to the combined percent VOC and methylene chloride by weight.

(a)(2) if an aerosol coating product is subject to both a general coating limit and a specialty coating limit, as listed in section 94522(a)(1), and the product meets all the criteria of the applicable specialty coating category as defined in section 94521, then the specialty coating limit shall apply instead of the general coating limit.

(b) **Sell-Through of Products**. Notwithstanding the provisions of section 94522(a), an aerosol coating product manufactured prior to each of the effective dates specified for that product in the Table of Standards may be sold, supplied, offered for sale, or applied for up to eighteen months after each of the specified effective dates. This subsection (b) does not apply to any product which: (1) is subject to the provisions of Bay Area Air Quality Management District Rule 8-49 and is sold, supplied, offered for sale, or applied within the Bay Area Air Quality Management District; or (2) does not

display on the product container or package the date on which the product was manufactured, or a code indicating such date.

(c) **Products Containing Methylene Chloride**. For any aerosol coating product containing methylene chloride, the VOC standards specified in section 94522(a) shall apply to the combined percent by weight of both volatile organic compounds, and methylene chloride, calculated as follows:

(Percent by weight VOC + Percent by weight methylene chloride) must be less than or equal to the applicable VOC standard

(d) **Products Containing Perchloroethylene or Ozone Depleting Substances.**

(1) After the effective date of this article, for any aerosol coating product for which standards are specified under section 94522(a), no person shall sell, supply, offer for sale, apply, or manufacture for use in California any aerosol coating product which contains perchloroethylene, or an ozone depleting substance identified by the Environmental Protection Agency in the Federal Register under 57 FR 33754, Appendices A and B, July 30, 1992. The requirements of this section 94522(d) shall not apply to (A) any existing product formulation that complies with the Table of Standards and was sold in California during calendar year 1992, or (B) any product formulation that was sold in California during calendar year 1992 that is reformulated to meet the Table of Standards, as long as the content of perchloroethylene, or ozone depleting substances, as identified in this section 94522(d), in the reformulated product does not increase.

(2) The requirements of section 94522(d)(1) shall not apply to any aerosol coating product containing perchloroethylene, or an ozone depleting substance as identified in section 94522(d)(1), that are present as impurities in a combined amount equal to or less than 0.01% by weight of the product.

(e) **Multicomponent Kits**. No person shall sell, supply, offer for sale, apply, or manufacture for use in California any multi-component kit, as defined in section 94521, in which the total weight of VOC and methylene chloride contained in the multi-component kit $(\text{Total VOC} + \text{MC})_{\text{actual}}$ is greater than the total weight of VOC and methylene chloride that would be allowed in the multi-component kit if each component product in the kit had separately met the applicable VOC standards $(\text{Total VOC} + \text{MC})_{\text{standard}}$ as calculated below:

$$(\text{Total VOC} + \text{MC})_{\text{actual}} = (\text{VOC}_1 \times W_1) + (\text{MC}_1 \times W_1) + (\text{VOC}_2 \times W_2) + (\text{MC}_2 \times W_2) + (\text{VOC}_n \times W_n) + (\text{MC}_n \times W_n)$$

$$(\text{Total VOC} + \text{MC})_{\text{standard}} = (\text{STD}_1 \times W_1) + (\text{STD}_2 \times W_2) + (\text{STD}_n \times W_n)$$

Where:
VOC = the percent by weight VOC of the component product
MC = the percent by weight methylene chloride of the component product
STD = the VOC standard specified in section 94522(a) which applies to the component product.
W = the weight of the product contents (excluding container)
Subscript 1 denotes the first component product in the kit
Subscript 2 denotes the second component product in the kit
Subscript n denotes any additional component product

(f) **Products Assembled by Adding Bulk Paint to Aerosol Containers of Propellant.** No person shall sell, supply, offer for sale, apply, or manufacture for use in the state of California any aerosol coating product assembled by adding bulk paint to aerosol containers of propellant, unless such products comply with the standards specified in section 94522(a).

(g) **Public Hearing on the 12/31/99 VOC Standards.** On or before December 31, 1998, the Air Resources Board shall conduct a noticed public hearing on the technological and commercial feasibility of achieving full compliance with the VOC limits specified for December 31, 1999. If the Board determines that it is not technologically or commercially feasible to achieve one or more of the specified VOC limits by December 31, 1999, the Board shall grant an extension of time to comply for up to five years. In granting an extension of time, the Board shall specify a final compliance date for each aerosol coating category that represents the earliest feasible date by which full compliance can be achieved. For each category the Board shall also determine the most stringent technologically and commercially feasible interim limit (or limits), and shall specify that such limit (or limits) shall be applicable during any extension of time granted by the Board. The Board may grant different extensions of time for different aerosol coating categories. The Board may also modify the final compliance limits as appropriate provided the final compliance limits achieve at least a 60 percent reduction in VOC emissions resulting from the use of aerosol coatings, calculated with respect to the 1989 baseline year.

(h) **Requirements for Lacquer Aerosol Coating Products.**

(1) Notwithstanding the provisions of Section 94522(a), lacquer aerosol coating products may be sold, supplied, offered for sale, applied, or manufactured for use in California with a combined VOC and methylene chloride content of up to 80 percent by weight until January 1, 1998.

(2) On or after January 1, 1998, all lacquer aerosol coating products sold, supplied, offered for sale, applied, or manufactured for use in California shall comply with the provisions of section 94522(a), except that lacquer aerosol coating

products manufactured prior to January 1, 1998 may be sold, supplied, offered for sale, or applied until July 1, 1999, as long as the product displays on the product container or package the date on which the product was manufactured or a code indicating such date.

(3) This subsection (h) does not apply to: (A) any lacquer coating product not clearly labeled as such, or (B) any lacquer coating product which is sold, supplied, offered for sale, applied, or manufactured for use in the Bay Area Air Quality Management District (BAAQMD) and is subject to BAAQMD Rule 8-49, or (C) any lacquer coating product that meets the definition of "clear coating" specified in section 94521.

NOTE: Authority cited: Section 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94523. Exemptions

(a) This article shall not apply to aerosol lubricants, mold releases, automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, adhesives, maskants, rust converters, dyes, inks, and leather preservatives or cleaners.

(b) This article shall not apply to any aerosol coating product manufactured in California for shipment and use outside of California.

(c) The provisions of this article shall not apply to a manufacturer, distributor, or responsible party who sells, supplies, or offers for sale in California an aerosol coating product that does not comply with the VOC standards specified in Section 94522(a), as long as the manufacturer, distributor, or responsible party can demonstrate both that the aerosol coating product is intended for shipment and use outside of California, and that the manufacturer, distributor, or responsible party has taken reasonable prudent precautions to assure that the aerosol coating product is not distributed to California. This subsection (c) does not apply to aerosol coating products that are sold, supplied, or offered for sale by any person to retail outlets in California.

(d) The requirement in section 94522(a) prohibiting the application of aerosol coating products containing volatile organic compounds in excess of the limits specified in the Table of Standards shall apply only to commercial application of aerosol coating products.

NOTE: Authority cited: Section 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94524. Administrative Requirements

(a) **Most Restrictive Limit.**

Except as otherwise provided in section 94522(a)(2), if anywhere on the container of any aerosol coating product listed in the Table of Standards, or on any sticker or label affixed thereto, or in any sales or advertising literature, any representation is made that the product may be used as, or is suitable for use as a product for which a lower VOC standard is specified, then the lowest applicable VOC standard shall apply.

(b) **Labeling Requirements.**

(1) Both the manufacturer and responsible party for each aerosol coating product subject to this article shall ensure that all products subject to section 94522(a) clearly display the following information on each product container which is manufactured 90 days or later after the effective date of this article:

(A)(i) the applicable VOC standard for the product that is specified in section 94522(a), expressed as a percentage by weight unless the product is included in an alternative control plan approved by the Executive Officer, as provided in Article 4. Section 94540-94555, Title 17, California Code of Regulations, and the product exceeds the applicable VOC standard;

(ii) if the product is included in an alternative control plan approved by the Executive Officer, and the product exceeds the applicable VOC standard specified in section 94522(a), the product shall be labeled with the term "ACP" or "ACP product";

(B) the aerosol coating category as defined in section 94521, or an abbreviation of the coating category; and

(C) the day, month, and year on which the product was manufactured, or a code indicating such date.

(2) The information required in section 94524(b)(1), shall be displayed on the product container such that it is readily observable without removing or disassembling any portion of the product container or packaging. For the purposes of this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

(3) No person shall remove, alter, conceal, or deface the information required in

section 94524(b)(1) prior to final sale of the product.

(4) For any aerosol coating product subject to section 94522(a), if the manufacturer or responsible party uses a code indicating the date of manufacture or an abbreviation of the coating category as defined in section 94521, an explanation of the code or abbreviation must be filed with the Executive Officer prior to the use of the code or abbreviation.

(c) **Reporting Requirements**

(1) Any responsible party for an aerosol coating product subject to this article which is sold, supplied, or offered for sale in California, must supply the Executive Officer of the Air Resources Board with the following information within 90 days of the effective date of this article: the company name, mail address, contact person, and the telephone number of the contact person.

For responsible parties who do not manufacture their own aerosol coating products, the responsible party shall also supply the information specified in this subsection (c)(1) for those manufacturers which produce products for the responsible party.

The responsible party shall also notify the Executive Officer within 90 days of any change in the information supplied to the Executive Officer pursuant to this subsection (c)(1).

(2) Any manufacturer of an aerosol coating product subject to this article shall also submit the following to the Executive Officer:

(A) By January 1, 1998, the information required under section 94524(c)(3) for the 1997 calendar year, or the most recent 12 month period for which accurate data is available.

(B) By January 1, 1998, a written report of the research and development efforts undertaken to achieve the December 31, 1999 VOC limits. This report shall include the following information for the general coating categories in the Table of Standards, and, upon request by the Executive Officer, information for the specialty coating categories shall also be included:

(i) the raw materials and valve systems tested, including resin types, propellants, solvents, and paint solids;

(ii) the testing protocols used to test the products;

(iii) the results of the testing performed to evaluate the products and the conclusions reached from the results; and

(iv) a listing of all product formulations which meet the December 31, 1999 standards specified in section 94522(a), and the projected cost to manufacture them.

(3) Upon 90 days written notice, each manufacturer or responsible party subject to this article shall submit to the Executive Officer a written report with all of the following information for each product they manufacture under their name or another company's name:

(A) the brand name of the product;
(B) upon request, a copy of the product label;
(C) the owner of the trademark or brand names;
(D) the product category as defined in section 94521;
(E) the annual California sales in pounds per year and the method used to calculate California annual sales;
(F) the percent by weight VOC, water, solids, propellant, and any compounds exempt from the definition of VOC as specified in section 94521;
(G) an identification of each product brand name as a "household," "industrial," or "both" product; and
(H) any other information necessary to determine the emissions from aerosol coating products.

The information requested in this section (c)(3) may be supplied as an average for a group of aerosol coating products within the same coating category when the products do not vary in VOC content by more than two percent (by weight), and the coatings are based on the same resin type, or the products are color variations of the same product (even if the coatings vary by more than 2 percent in VOC content).

(4) Upon written request, the responsible party for aerosol coating products subject to this article shall supply the executive officer with a list of all exempt compounds contained in any aerosol coating product within 15 working days.

(5) All information submitted by manufacturers pursuant to section 94524 shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022.

NOTE: Authority cited: Section 39600, 39601, 41511, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511, and 41712, Health and Safety Code.

94525. Variances

(a) Any person who cannot comply with the requirements set forth in Section 94522, because of extraordinary reasons beyond the person's reasonable control may apply in writing to the Executive Officer for a variance. The variance application shall set forth:

(1) the specific grounds upon which the variance is sought;

(2) the proposed date(s) by which compliance with the provisions of Section 94522 will be achieved, and

(3) a compliance report reasonably detailing the method(s) by which compliance will be achieved.

(b) Upon receipt of a variance application containing the information required in subsection (a), the Executive Officer shall hold a public hearing to determine whether, under what conditions, and to what extent, a variance from the requirements in Section 94522 is necessary and will be permitted. A hearing shall be initiated no later than 75 working days after receipt of a variance application. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to every person who requests such notice, not less than 30 days prior to the hearing. The notice shall state that the parties may, but need not be, represented by counsel at the hearing. At least 30 days prior to the hearing, the variance application shall be made available to the public for inspection. Information submitted to the Executive Officer by a variance applicant may be claimed as confidential, and such information shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, Sections 91000-91022. The Executive Officer may consider such confidential information in reaching a decision on a variance application. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.

(c) No variance shall be granted unless all of the following findings are made:

(1) that, because of reasons beyond the reasonable control of the applicant, requiring compliance with Section 94522 would result in extraordinary economic hardship.

(2) that the public interest in mitigating the extraordinary hardship to the applicant by issuing the variance outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance.

(3) that the compliance report proposed by the applicant can reasonably be implemented, and will achieve compliance as expeditiously as possible.

(d) Any variance order shall specify a final compliance date by which the requirements of Section 94522 will be achieved. Any variance order shall contain a condition that specifies increments of progress necessary to assure timely compliance, and such other conditions that the Executive Officer, in consideration of the testimony received at the hearing, finds necessary to carry out the purposes of Division 26 of the Health and Safety Code.

(e) A variance shall cease to be effective upon failure of the party to whom the variance was granted to comply with any term or condition of the variance.

(f) Upon the application of any person, the Executive Officer may review, and for good cause, modify or revoke a variance from the requirements of Section 94522 after holding a public hearing in accordance with the provisions of subsection 94525(b).

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94526. Test Methods

Compliance with the requirements of this article shall be determined by using the following test methods, which are incorporated by reference herein. Alternative test methods which are shown to accurately determine the VOC content, exempt compound content, metal content, specular gloss, or acid content may also be used after approval in writing by the Executive Officer:

(a) VOC Content. The VOC content of solvent-based aerosol coating products subject to the provisions of this article shall be determined by the procedures set forth in Bay Area Air Quality Management District Manual of Procedures, Volume III, Laboratory Procedures, Method 35, "Determination of Volatile Organic Compounds (VOC) in Solvent Based Aerosol Paints", as amended January 19, 1994. For water-containing aerosol coating products subject to the provisions of this article, the VOC content shall be determined by ASTM D-5325-92, "Standard Test Method for Determination of Weight Percent Volatile Content of Water-Borne Aerosol Paints", November 15, 1992.

(b) Exempt Compounds. Compounds exempt from the definition of VOC shall be analyzed according to the test methods listed below:

(1) the content of 1,1-difluoroethane shall be determined by BAAQMD Method 35, "Determination of Volatile Organic Compounds (VOC) in Solvent Based Aerosol Paints", as amended January 19, 1994.

Other exempt compounds which are used as propellants in aerosol coatings may also be quantified using this method with prior written approval of the Executive Officer.

(2) the content of dichloromethane (methylene chloride) and 1,1,1-trichloroethane shall be determined by ARB Method 432, California Code of Regulations, Title 17, Section 94144, after removal of the propellant following the procedure in ASTM Method D-5325-92, "Standard Test Method for Determination of Weight Percent Volatile Content of Water-Borne Aerosol Paints", November 15, 1992. Other exempt compounds (except for propellants) in aerosol coatings may also be quantified using this method with prior written approval of the Executive Officer; and

(3) the following classes of compounds will be analyzed as exempt compounds only if manufacturers specify which individual compounds are used in the product formulations and identify the test methods, which, prior to such analysis, have been approved by the Executive Officer of the ARB, and can be used to quantify the amounts of each exempt compound: cyclic, branched, or linear, completely fluorinated alkanes; cyclic, branched, or linear, completely fluorinated ethers with no unsaturations; cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations; and sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(c) Metal Content. The metal content of metallic aerosol coating products shall be determined by South Coast Air Quality Management District Test Method 311 (SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual), June 1, 1991, after removal of the propellant following the procedure in ASTM Method D-5325-92, "Standard Test Method for Determination of Weight Percent Volatile Content of Water-Borne Aerosol Paints", November 15, 1992.

(d) Specular Gloss. Specular gloss of flat and nonflat coatings shall be determined by ASTM Method D-523-89, March 31, 1989.

(e) Acid Content. The acid content of rust converters shall be determined by ASTM Method D-1613-91, "Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products, May 15, 1991, after removal of the propellant following the procedure in ASTM Method D-5325-92, "Standard Test Method for Determination of Weight Percent Volatile Content of Water-Borne Aerosol Paints", November 15, 1992.

(f) Lacquers. Lacquer aerosol coating products shall be identified according to the procedures specified in ASTM Method D-5043-90, "Standard Test Methods for Field Identification of Coatings," April 27, 1990.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94527. Severability

Each part of this article shall be deemed severable, and in the event that any part of this article is held to be invalid, the remainder of this article shall continue in full force and effect.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94528. Federal Enforceability

For purposes of federal enforceability of this article, the United States Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under sections 94525 and 94526. Within 180 days of a request from a person who has been granted a variance under Section 94525, a variance meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to Section 110 of the Clean Air Act, 42 U.S.C., Section 7410.

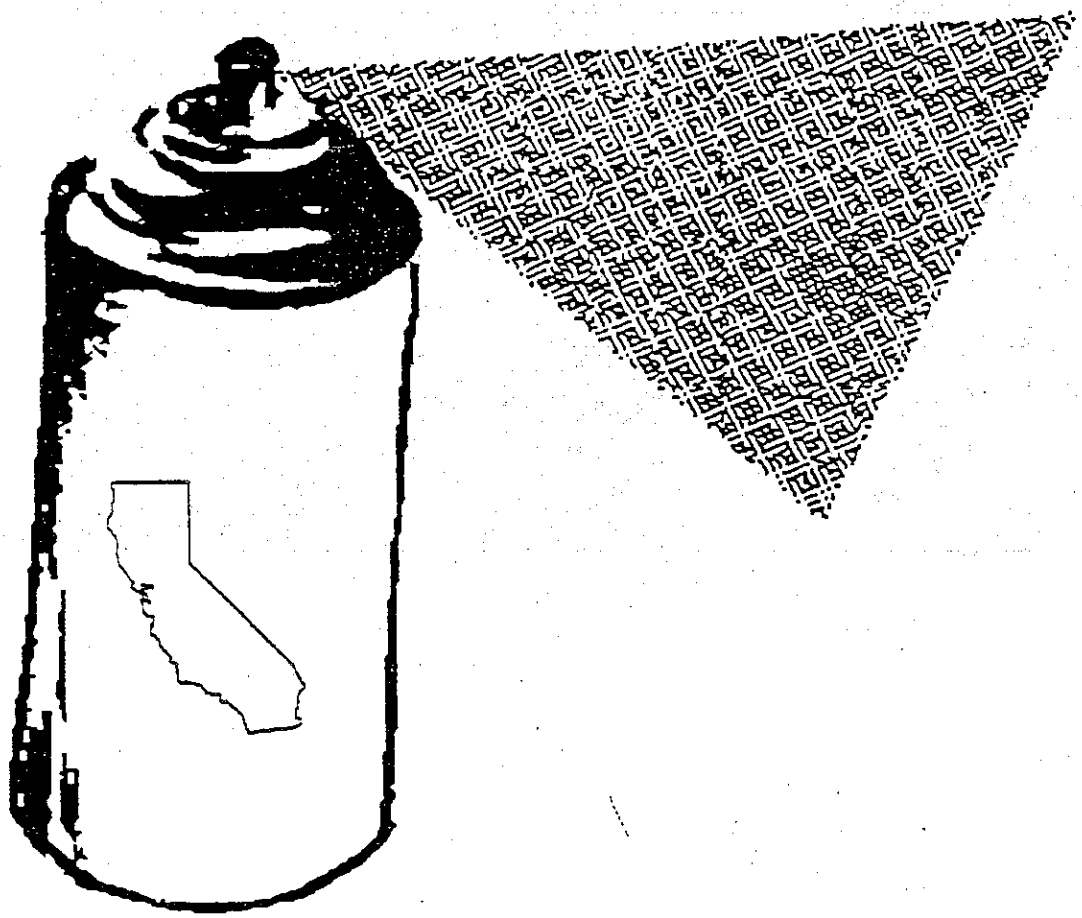
NOTE: Authority cited: Section 39600, 39601, 39602, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 39602, 40000, and 41712, Health and Safety Code.

APPENDIX D:

ARB AEROSOL PAINT SURVEY

AEROSOL PAINT SURVEY

CALIFORNIA 1992 SALES



CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

AIR RESOURCES BOARD

CONDUCTED BY ARB - SPRING 1993

California Air Resources Board - Aerosol Coatings Survey

Survey Packet Contents

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Survey Forms

Survey Form I

Survey Form II

Confidential Information Submittal Form

If you have any questions, please call:

Paul Milkey (916) 327-1517
Peter Liu (916) 327-1516

INSTRUCTIONS FOR COMPLETING THE SURVEY FORM

Please complete the enclosed survey forms. Complete Form I by answering the questions in the form. Complete Form II for all aerosol coating products by following the instructions provided below. Please photocopy Form II if additional copies are necessary. In reporting products for the survey, report each coating product in a coating category as a separate item. You many group coatings together within the same coating category only when the following conditions are met:

(1) the coatings do not vary in VOC content by more than two percent (by weight); and the coatings are based on the same resin type and carrier type (i.e. solvent-borne or water-borne); or

(2) the coatings are color varieties of the same coating product (even if the coatings vary by more than 2% VOC).

In reporting grouped coatings as one entry, the VOC content and other formulation data reported for the entry shall be the sales weighted average value (see below for sales weighted average calculation). Also, for grouped coatings, the range in VOC content should be listed under "Comments" on the survey form.

Sales Weighted Average Calculation

The Sales Weighted Average (SWA) is an average value for grouped coatings calculated by weighting the individual values by their sales. For this survey, the SWA should be used to report grouped coatings under entries (7) through (14) on survey Form II.

$$SWA = \frac{(Value_1 \times Sales_1 + Value_2 \times Sales_2 + \ldots Value_n \times Sales_n}{Sales_1 + Sales_2 \ldots Sales_n}$$

Where: Value (1,2...n) = Coating characteristic values (e.g., VOC content) for products 1,2,...n.

Sales (1,2,...n) = Sales (lbs/yr) for products 1,2,...n.

(1) Item Number - Number each coating entry into the survey form starting from 1.

(2) Product Name - List the product name of each product exactly as it appears on the label of your product. Grouped products within the same coating category, may be listed as "various names", with sales data reported as an aggregate. If there are multiple product names, please list under the space provided for "Comments" if possible.

(3) Use Code (H,I,B) - Identify whether the product is used for household (H), industrial (I), or both (B) in the column provided.

(4) Coating Code - Enter the code from the list below which best describes the coating product (see pages 5-9 for definitions of the categories below). If none of the codes apply, enter "other" and explain under the "Comments" section at the bottom of the survey Form II. Enter data only for products that are designed to apply a permanent coating.

Code	Coating
General Coatings	
01	Clear Coatings
02	Flat Paint Products
03	Fluorescent
04	Ground Traffic Marking Coatings
05	Metallic Coatings
06	Non-Flat Paint Products
07	Primer
Specialty Coatings-Clear and Tinted Coatings	
08	Art Varnish
09	Corrosion Resistant Brass/Bronze/Copper Coatings
10	Marine Spar Varnish
11	Photographic Emulsion Coating
	Shellac Sealer
12	Clear
13	Pigmented
14	Vinyl/Fabric/Polycarbonate
15	Webbing/Veiling Coating
16	Wood Stain
17	Workable Art Fixative
Specialty Coatings-Exact Match Finish	
18	Engine Enamel

19	Automotive
20	Industrial

Specialty Coatings-Miscellaneous Coatings

21	Auto Body Primer
22	Automotive Bumper and Trim Products
23	Aviation Propeller Coatings
24	Aviation Zinc Primer
25	Floral Spray
26	Glass Coating
27	High Temperature Coating

Hobby/Model/Craft Coatings

28	Enamel
29	Lacquer
30	Clear, Metallic
31	Spatter Coating
32	Slip-Resistant Epoxy Coating
33	Weld-Through Primer
34	Wood Touch-up/Repair/Restoration

(5) 1992 California Sales - Enter your best estimate of the California sales (including the Bay Area sales) of the coating (in pounds per year) during the calendar year 1992. If such data are not available, enter the sales from the twelve month period closest to 1992. Include all coatings that your company sold in California or sold to another party for sale in California during the calendar period of reporting.

(6) Bay Area Sales Only - Enter a check in this column, if the product is sold only in the Bay Area Air Quality Management District during the calendar period of reporting.

(7) Percent By Weight - VOC - Enter the percent by weight of volatile organic compound (VOC) content, as defined under "Definitions".

(8) Percent By Weight - Solid - Enter the percent by weight of solids, including pigments, resins, fillers, and other ingredients that do not evaporate after the coating is applied.

(9) Percent By Weight - Water - Enter the percent by weight of water in the product.

(10) Percent By Weight - Other - Enter the percent by weight of all other ingredients that do not fall under the definition of VOC, solid, or water (if any). For example, halogenated

solvents such as methylene chloride, 1,1,1-trichloroethane (methyl chloroform), and perchloroethane. Note that columns (7) through (10) should add up to 100%.

(11) Percent By Weight - MC - Enter the percent by weight of methylene chloride in the product.

(12) Percent By Weight - TCE - Enter the percent by weight of 1,1,1-trichloroethane (methyl chloroform) in the product.

(13) Percent By Weight - Perc - Enter the percent by weight of perchloroethylene in the product.

(14) Percent By Weight - Propellant - Enter the percent by weight of propellants in the product (for example, isobutane and propane).

DEFINITIONS

Aerosol: A suspension of solid or liquid particles in a gas.

Aerosol Paint Product: A mixture of pigments, resins, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application.

Art Varnish: A coating labelled exclusively as such which provides a protective sealant for oil paints or other closely related art uses.

Auto Body Primer: A heavily pigmented automotive primer or primer surfacer coating labelled exclusively as such and applied directly to an uncoated vehicle body substrate or on top of a precoat for purposes of corrosion resistance, building a repair area to a condition in which it, after drying, can be sanded to a smooth surface.

Automotive Bumper and Trim Products: Coatings formulated and labelled exclusively as such which are used to repair and refinish automotive bumpers and plastic trim parts including adhesion promoters and chip sealants.

Aviation Propeller Coating: An epoxy coating formulated and labelled exclusively as such which provides abrasion resistance and corrosion protection for aircraft propellers.

Aviation Zinc Primer: Zinc chromate or zinc oxide coatings formulated to military specification MIL-P-8989 and labelled exclusively as such.

Clear Coating: A coating which is colorless, containing binders but no pigment, and which is formulated to form a transparent or translucent solid film.

Corrosion Resistant Brass/Bronze/Copper Coating: A clear coating formulated and labelled exclusively as such to prevent tarnish and corrosion of brass, bronze, and copper surfaces.

Enamel: A coating which cures by chemical cross-linking of its base resin. Enamels can be readily distinguished from lacquers because enamels are not resoluble in their original solvent.

Exact Match Finish, Automotive: A topcoat labelled exclusively as such, which is formulated to exactly match the color of the original, factory-applied automotive finish coating during touch-up or minor repair operations. The cans shall be labelled with the OEM part number. Can contents shall not exceed six ounces by weight if offered for retail sale.

Exact Match Finish, Engine Paint: A coating, labelled exclusively as such, applied to the exterior surface of motor vehicle engine blocks or components attached to a motor vehicle engine. The cans shall be labelled with the Original Equipment Manufacturer's (OEM) part number.

Exact Match Finish, Industrial: A coating which is formulated to exactly match the color of an original, factory-applied industrial coating. The cans shall be labelled with the manufacturer's OEM part number. This category applies primarily to touch-up of manufactured products prior to shipment or during initial installation: retail sales will be allowed through authorized OEM dealers only.

Flat Paint Products: A coating which, when fully dry, has a gloss of 5 or less on a 60 ° meter.

Floral Spray: A coating labelled exclusively as such, which is sprayed on fresh flowers for the purpose of preserving and protecting their appearance.

Fluorescent Coating: A coating labelled as such which converts absorbed incident light energy into emitted light of a different hue.

Glass Coating: A coating labelled exclusively as such, which is applied to glass to tint or darken the color of the glass while retaining transparency.

Ground Traffic/Marking Coating: A coating used to delineate vehicular or pedestrian traffic flow in a manufacturing facility or on a public highway, or to mark or define locations used by public utilities (e.g. gas, telephone, electric).

Hobby/Model/Craft Coating: A coating primarily for hobby applications. Can contents shall not exceed six ounces by weight.

High Temperature Coating: A coating labelled exclusively as such, which is formulated for and applied to substances which will, in normal use, be subjected to temperatures in excess of 400 ° F.

Lacquer: A film-forming material dissolved in organic solvent, which dries primarily by solvent evaporation, and hence is resoluble in its original solvent.

Marine Spar Varnish: A coating labelled exclusively as such which provides a protective sealant for marine wood products.

Metallic Coating: A topcoat labelled as such and containing metallic particles which impart a metallic appearance when dry.

Multi-Component Kits: Aerosol spray paint systems which require the application of more than one component (e.g., foundation coat and top coat), where both components are sold together in one package and neither is sold separately.

Non-Flat Paint Products: A coating which, when fully dry, has a gloss of greater than 15 on an 85° meter or greater than 5 on an 60 ° meter.

Paint: A mixture of pigments, resins, and liquid solvents which can be applied to a surface to form a thin and closely adherent coating. For the purposes of this regulation, this definition shall include, but shall not be limited to, clear coatings, primers, metallic coatings, and wood stains.

Photographic Emulsion Coating: A coating formulated and labelled exclusively as such, applied to finished photographs to allow corrective retouching or protection of the image.

Primer: A coating formulated and labelled as such to be applied to a surface to provide a bond between that surface and subsequent coats.

Propellant: A liquified or compressed gas which expels the contents of a container when the pressure is released.

Retail Sales: The sale of goods directly to a non-commercial consumer. For the purposes of this survey, sales to jobbers and industrial end-users shall not be deemed retail sales.

Shellac Sealer: A clear or pigmented coating formulated solely with the resinous secretion of the lac beetle (Laccifer lecca), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction.

Slip-Resistant Epoxy Coating: An epoxy ester coating labelled exclusively as such which is formulated with synthetic grit, and used as a safety coating.

Solids: The non-volatile portion of an aerosol paint product, consisting of the film-forming ingredients (pigments and resins).

Spatter Coating: A coating wherein spots, globules, or spatters of individual or contrasting colors appear on or within the surface of a contrasting or similar background.

Vinyl/Fabric/Polycarbonate: A coating labelled exclusively as such, which is used exclusively to coat vinyl, fabric, or polycarbonate substrates.

Volatile Organic Compounds (VOC): Volatile organic compound means any compound containing at least one atom of carbon, except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, 1,1,1-trichloroethane, methylene chloride, trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), chlorodifluoromethane (HCFC-22), trifluoromethane (HFC-23), 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113), 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114), chloropentafluoroethane (CFC-115), 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), 1,1-dichloro-1-fluoroethane (HCFC-141b), 1-chloro-1,1-difluoroethane (HCFC-142b), 1,1,1-trifluoroethane (HFC-143a), 1,1-difluoroethane (HFC-152a), and the following four classes of perfluorocarbon (PFC) compounds:

(1) cyclic, branched, or linear, completely fluorinated alkanes,
(2) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
(3) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
(4) saturated perfluorocarbons containing sulfur with sulfur bonds only to carbon and fluorine.

Webbing/Veiling Coating: A coating labelled exclusively as such, which is formulated to give a stranded or spider webbed appearance when applied.

Weld-Through Primer: A coating formulated and labelled exclusively as such which provides a bridging or conducting effect to provide corrosion protection following welding.

Wood Stain: A coating which is formulated to change the color of a wood surface but not conceal the surface.

Wood Touch-Up/Repair/Restoration: A coating formulated and labelled exclusively as such which provides an exact color or sheen match on finished wood products.

Workable Art Fixative: A clear coating formulated and labelled exclusively as such which provides protection for pencil, charcoal, chalk, and pastel drawings, while providing a workable surface.

Example of Completed Survey Form II

The following page is a completed survey Form II (page 11) for the hypothetical coatings below:

Item #	Coating Description
1	"Purfec-Shun" Gloss Enamel (Snowy White) Sales: 50,000 lbs (1992 Calif.); 0 (Bay Area) Content Information: 25% solids; 50% hydrocarbon solvents; 25% hydrocarbon propellants
2	"Purfec-Shun" Gloss Enamel (BBQ Black) Sales: 50,000 lbs (1992 Calif.); 0 (Bay Area) Content Information: 15% solids; 60% hydrocarbon solvents; 25% hydrocarbon propellants
3	"Krystal-Kleer" Clear Coating (flat) Sales: 10,000 lbs (1992-Bay Area only) Content Information: 15% solids; 30% water; 20% hydrocarbon solvents; 35% propellant (DME)
4	"Otto Magic" Automotive Sanding Primer (gray) Sales: 25,000 lbs (1992 Calif.); 4,000 lbs (Bay Area) Content Information: 20% solids; 30% methylene chloride; 20% hydrocarbon solvents; 30% hydrocarbon propellant

SAMPLE

CONFIDENTIAL? YES ____ NO ____

AEROSOL PAINT SURVEY - FORM II

Item # (1)	Product Name (2)	Use Code (H,I,B) (3)	Coating Code (4)	1992 Calif. Sales lbs/yr (5)	Bay Area Sales Only (6)	Percent By Weight * VOC (incl. pro-pellant (7)	Solids (8)	Water (9)	Other (10)	Percent By Weight MC (11)	TCA (12)	Perc (13)	Pro-pellant (14)
1	Purfec-Shun	B	6	100,000		80%	20%	0	0	0	0	0	25%
2	Krystal-Kleer	B	1	10,000		55%	15%	30%	0	0	0	0	35%
3	Otto-Magic	B	21	25,000		50%	20%	0	30%	30%	0	0	30%

* Columns (7) - (10) should add up to 100%.

(16) Comments: Reference each comment with its item number and column number. Continue on back if additional space is necessary.

Item 1, Column 2: Colors white and black lumped together. VOC range 75% - 85%.

SAMPLE

COMPANY CODE NUMBER ____ (LEAVE BLANK) PLEASE PHOTOCOPY THIS FORM IF NECESSARY PAGE ____ OF ____

11

THE FOLLOWING PAGES ARE THE ACTUAL SURVEY FORMS THAT MUST BE COMPLETED:

FORM I

FORM II

CONFIDENTIAL INFORMATION SUBMITTAL FORM

California Air Resources Board - Aerosol Paint Survey

Form I

Company Code [ ] (leave blank)

Company Name: _____

Address: _____

Contact Person: _____

Phone: _____

Please answer the following questions:

1. Does your company manufacturer and/or distribute aerosol coatings for sale in California?

   [ ] Yes [ ] No

2. What is your company's marketing classification?

   [ ] Interstate [ ] Calif. Statewide [ ] Calif. Regional

3. Do you consider your company to be a small business?

   [ ] Yes [ ] No

4. If you answered no to question #1, do you wish to remain on the Air Resources Board's mailing list?

   [ ] Yes [ ] No

CONFIDENTIAL? YES ____ NO ____

AEROSOL PAINT SURVEY - FORM II

Item # (1)	Product Name (2)	Use Code (H,I,B) (3)	Coating Code (4)	1992 Calif. Sales lbs/yr (5)	Bay Area Sales Only (6)	Percent By Weight *				Percent By Weight			
						VOC (incl. pro-pellant (7)	Solids (incl. resins) (8)	Water (9)	Other (10)	MC (11)	TCA (12)	Perc (13)	Pro-pellant (14)

* Columns (7) - (10) should add up to 100%.

(16) Comments: Reference each comment with its item number and column number. Continue on back if additional space is necessary.

COMPANY CODE NUMBER _____ (LEAVE BLANK)

PLEASE PHOTOCOPY THIS FORM IF NECESSARY

PAGE ____ OF ____

CONFIDENTIAL INFORMATION SUBMITTAL FORM

[If you wish to designate any information contained in your survey data as confidential, please provide the data requested below and return with it your survey.]

In accordance with Title 17, California Code of Regulations (CCR), Section 91000 to 91022, and the California Public Records Act (Government Code Section 6250 et seq.), the information that a company provides to the Air Resources Board (ARB) may be released (1) to the public upon request, except trade secrets which are not emissions data or other information which is exempt from disclosure or the disclosure of which is prohibited by law, and (2) to the Federal Environmental Protection Agency (EPA), which protects trade secrets as provided in Section 114(c) of the Clean Air Act and amendments thereto (42 USC 7401 et seq.) and in federal regulation, and (3) to other public agencies provided that those agencies preserve the protections afforded information which is identified as a trade secret, or otherwise exempt from disclosure by law (Section 39660 (e)).

Trade secrets as defined in Government Code Section 6254.7 are not public records and therefore will not be released to the public. However, the California Public Records Act provides that air pollution emission data are always public records, even if the data comes within the definition of trade secrets. On the other hand, the information used to calculate information is a trade secret.

If any company believes that any of the information it may provide is a trade secret or otherwise exempt from disclosure under any other provision of law, it must identify the confidential information as such at the time of submission to the ARB and must provide the name, address, and telephone number of the individual to be consulted if the ARB receives a request for disclosure or seeks to disclose the data claimed to be confidential. The ARB may ask the company to provide documentation of its claim of trade secret or exemption at a later date. Data identified as confidential will not be disclosed unless the ARB determines, in accordance with the above referenced regulations, that the data do not qualify for a legal exemption from disclosure. The regulations establish substantial safeguards before any such disclosure.

In accordance with the provisions of Title 17, California Code of Regulations, Section 91000 to 91022, and the California Public Records Act (Government Code Sections 6250 et seq.),

Company Name: _____ declares that all the information submitted in response to the California Air Resources Board's Aerosol Paint Survey is confidential "trade secret" information, and request that it be protected as such from public disclosure. All inquiries pertaining to the confidentiality of this information should be directed to the following person:

Date: _____

Mailing Address:

_____ (Signature) _____

_____ (Printed Name) _____

_____ (Title) _____

_____ (Telephone Number) _____

APPENDIX E:

BATELLE REPORT

Final Report

SURVEY OF EMISSIONS FROM SOLVENT USE — VOLUME I: AEROSOL PAINTS

Prepared for

CALIFORNIA AIR RESOURCES BOARD

by

BATTELLE
505 King Avenue
Columbus, Ohio 43201

Contract Number A132-086

John E. Orban, Principal Investigator
Philip R. Sticksel
Tamara J. Collins
Nicholas R. Sasso
Darlene E. Wells

September 13, 1994

The statements and conclusions in this report are those of the contractor and not necessarily those of the California Air Resources Board. The mention of commercial products, their sources, or their use in connection with material reported herein is not to be construed as actual or implied endorsement of such products.

ACKNOWLEDGEMENTS

The Battelle Principal Investigator for this task was Dr. John Orban. Subtask leaders were Dr. Philip Sticksel, data review and company contact; Ms. Tamara Collins, data management and documentation; and Mr. Nick Sasso, database system programming. Other contributors included Ms. Kim Hern and Ms. Christine O'Donnell, data entry and validation; and Mr. Steve Wall, database system support. Technical typing was performed by Ms. Mary Kayser and Ms. Yvonne Abernathy.

Technical direction at ARB was provided by Mr. Paul Milkey and Ms. Peggy Taricco of ARB's Stationary Source Division. The Contract Manager was Mr. Ralph Propper of ARB's Research Division.

This report was submitted in fulfillment of ARB Contract A132-086: Survey of Emissions from Solvent Use (Volume I: Aerosol Paints -- Volume II: Architectural Coatings) by Battelle Memorial Institute under sponsorship of the California Air Resources Board. Work was completed as of September 13, 1994.

ABSTRACT

The California Air Resources Board (ARB) is required under section 41712 of the California Health and Safety Code to develop regulations controlling the emissions of volatile organic compounds (VOC) from aerosol coating products packaged in disposable cans and dispensed by means of a propellant. In February, 1993, the ARB mailed survey questionnaires to companies that potentially sold aerosol coating products in California. Information requested from the companies included coating category, type of use, and product composition (weight percent of VOCs, solids, water, and other components). Fifty-eight companies reported sales of 17.6 million pounds of aerosol paints in California during 1992. Approximately 91% of the aerosol paints sold in California are solvent-based and 9% are water-based. Products were classified into seven "general" and 27 "specialty" coating categories. Fifty-five percent of the products were classified as non-flat paints, 27% were classified in six other general categories, and 18% were classified as specialty coatings. Total emissions were estimated to be 13.5 million pounds of VOCs. The sales weighted average VOC content of the products in the survey was 77% by weight. The ARB will use the results of the survey to better understand the aerosol paint marketplace and to evaluate the emissions and cost impacts of proposed standards.

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INTRODUCTION

The California Air Resources Board is required under section 41712 of the California Health and Safety Code to develop regulations controlling the emissions of volatile organic compounds (VOCs) from aerosol coating products. These regulations would cover coatings that are packaged in disposable cans and are dispensed from these cans by means of a propellant.

In order to estimate the amount of VOCs potentially entering the air from aerosol paint cans, the ARB conducted a survey of all manufacturers and marketers of aerosol coating products in the state. The ARB will use the data to better understand the aerosol paint marketplace and to evaluate the emissions and cost impacts of proposed standards.

MATERIALS AND METHODS

THE SURVEY

In February, 1993, the ARB mailed survey questionnaires to companies that potentially sold aerosol coating products in California during 1992. The initial mailing list was formed from the following sources of information:

1. National Paint and Coating Association
   1500 Rhode Island Ave., NW
   Washington, DC 20005-5597

2. Western Aerosol Information Bureau
   P.O. Box 1723
   Walnut, CA 91788-1723

3. 1992 Thomas Register (Sections: "Paints: Aerosol Touch-Up" and "Coatings: Aerosol")

4. Industry Supplied Mailing Lists

Of the 87 companies identified from these sources and contacted by mail, 61 (70%) returned survey questionnaires to ARB . All of the companies that were known at that time to manufacture or distribute aerosol paints in California completed a questionnaire. A few of the companies that returned questionnaires indicated that they do not sell aerosol paints in California.

Following the initial mailing, 27 small companies were added to the mailing list and sent surveys when they contacted the ARB for information about aerosol paint regulations, or were identified in the course of ARB's regulation development efforts. Seven of these companies returned completed questionnaires to ARB, in time to include them in the results of this report.

Of the 68 companies returning questionnaires to ARB by November 1, 1993, it was determined that 58 sell aerosol paints in California. The other 10 companies either stated that they do not sell aerosol paints in California or they are manufacturers whose products are distributed by other participating companies. In the latter case, product information from the manufacturer was combined with the company information provided by the distributor. The names of the participating companies with headquarters in California (based on reported mailing address) are listed in Table 1a. Participating companies from other U.S. states and Canada are listed in Table 1b. Companies that consider themselves to be small businesses are noted in Tables 1a and 1b.

Information requested from the companies includes company address, contact person, company size (small or large business), market classification (interstate, California statewide, California regional), and whether or not the company sells aerosol coatings in California. Product information requested includes coating category, type of use (home, industry, both), 1992 sales (lbs/yr), and product composition (weight percent of VOCs, solids, water, and other components). A copy of the survey questionnaire mailed to the companies is provided in Appendix A.

DATA PROCESSING

Battelle Memorial Institute, under contract with the ARB, processed the survey data. Battelle prepared a computer database, reviewed the data for accuracy and completeness, contacted representatives of participating companies to resolve problems, and prepared this report summarizing the results. Battelle also provided ARB with the database and computer programs to calculate emission reductions based on proposed standards.

Several steps were taken to ensure the accuracy and completeness of the data:

- Data were keyed twice into separate Paradox data files by two different keyers. The resulting files were compared electronically and differences were resolved using the original data forms.

- Data were sorted and printed for visual inspection to identify missing data and obvious errors in completing the questionnaires.

- Electronic data checks were performed to identify problems with the data. These checks included verifying that (1) The sum of percentages for VOCs, solids, water, and "other" components summed to 100%; (2) The reported amounts of VOC did not include methylene chloride (MC), 1,1,1-trichloroethane (TCA), and perchloroethylene (Perc) which were to be reported separately; (3) The amount of propellants was less than the amount of VOC; and (4) Selected data fields were completed.

- Problems identified through visual inspection and electronic data checks were resolved by contacting company representatives.

Twenty-one companies were contacted by telephone to resolve data management issues. Most questions were easily answered by correcting illegible data, recalculating the percentages of the components of the aerosol paints, or entering the information in the format that was requested by the survey form. Many errors were caused by the respondent's failure to understand the question. In several instances data were missing on the survey form because one firm (the distributor) was supplying the sales information while another firm (the manufacturer) was supplying the technical data. Both sets of data had been submitted in response to the survey, so the solution to the problem was to merge the two sets of data. The data were placed in the file under the distributor's name.

A common mistake was that the respondent assumed that MC, TCA, and PERC should be listed as VOC's instead of "other" when the percentages of components was totaled. Also, errors were occasionally made by the respondents when they used their composition formulas to calculate the percentages by weight of VOC, water, and "other" in their product.

The telephone conversations revealed that many companies had made special formulations of their product to meet the Bay Area requirements. To emphasize this action they listed the sales of this product under Bay Area only, but did not report the sales under the heading of California Sales. The correction was easily made once the respondent knew what was wanted.

One company reported sales per year instead of pound per year. Since the contact person was a replacement for the person who had originally filled out the survey form, we requested that he provide us an estimate of the pounds per year sold based on the provided dollar amount per year sold figure divided by the estimated cost of the individual product, multiplied by the number of pounds in each product. They provided this information.

Battelle provided ARB with detailed documentation of the data processing activities, database structure, and the database software for calculating emission reductions. ARB will also use the software to update the database and perform additional analyses as needed.

The data presented in this report were provided to the ARB by participating companies who manufacture or distribute aerosol paints in California. In processing the data, Battelle made every effort to minimize errors in data entry and took several steps to identify inconsistencies in the data. Battelle attempted to resolve problems through discussions with the ARB and company representatives. The validity of results presented in this report depends on the accuracy of the data which were provided by paint manufacturers and distributors.

RESULTS

TOTAL SALES AND ESTIMATED VOC EMISSIONS

The 17.6 million pounds of aerosol paint products reported sold in California during 1992 contain an estimated 13.5 million pounds of VOCs (77% sales weighted average VOC content). Thirteen of the 58 companies reporting California sales are located in California, 13 in Ohio, and 8 in Illinois. The remaining 24 companies are located in 15 other U.S. states and Canada. However, as shown in Figure 1, over 61 percent of the total sales come from Ohio-based companies. Companies in California and Illinois account for 29 percent of sales, and companies from the other states and Canada account for the remaining 10 percent of sales. The 33 companies that classified themselves as small businesses accounted for 5.8 million pounds, or approximately one-third of the statewide sales in 1992.

The participating companies reported information on 1,093 separate aerosol paint products. As shown in Table 2, nearly two-thirds of the companies reported sales of fewer than 10 products.

SALES AND ESTIMATED EMISSIONS BY COATING CATEGORY

Products were classified into seven "general" and 27 "specialty" coating categories. Figure 2 shows the percent of sales in each of the seven general categories and in the combined specialty categories. Nearly 55% of the aerosol paints sold in California are classified as non-flat paints and 27% were classified in six other general categories. Approximately 18% of the paints sold were classified as specialty coatings. Figure 3 describes the distribution of VOC emissions (as percent of total estimated emissions) among the various coating categories.

Table 3 contains a summary of the results from the 1992 aerosol paint survey. No sales were reported in three of the specialty categories (Corrosion Resistant Brass/Bronze/Copper Coatings, Photographic Emulsion Coatings, and Floral Sprays).

However, ARB staff have subsequently identified manufacturers of these products and expect to receive survey data for these categories in the future. Thirteen of the specialty coating categories were consolidated into the "other specialty coatings" category because the products were provided by fewer than four companies. Release of such data for individual categories could be considered proprietary by the manufacturers.

Table 3 summarizes the sales and composition of products sold within 19 coating type categories. For example, in 1992, over 634,000 pounds of clear coatings were sold in California. The sales were divided among 102 products from 27 different companies. Reported VOC levels among the clear coatings ranged from 50.5% to 96.7%, with a sales weighted average of 84.7%. Estimated annual emissions include 537,593 pounds of VOCs, 2,948 pounds of methylene chloride, and 455 pounds of 1,1,1-Trichloroethane. Sales weighted average percentages of solids, water, other non-VOC components, and propellants are also provided.

PRODUCTS CONTAINING METHYLENE CHLORIDE OR 1,1,1-TRICHLOROETHANE

Among all products sold in California, 2.6% contain methylene chloride (MC) and 3.6% contain 1,1,1-trichloroethane (TCA). Estimated annual emissions of MC and TCA were 145,926 pounds and 191,239 pounds, respectively. Combined, these represent 2.4% of the estimated total (VOC+MC+TCA) emissions from aerosol paint products. TCA is being phased out by the U.S. EPA and will no longer be produced for use in aerosol paints or other nonessential products after January 1, 1996. No companies reported sales of aerosol products containing perchloroethylene.

WATER-BASED AND SOLVENT-BASED PRODUCTS

Additional information on water-based and solvent-based products is provided in Table 4. Approximately 1.6 million pounds of water-based products were sold in California in 1992. This represents 9.3% of the total aerosol paint sales across all coating

types. In general, the water-based products represent a small portion of sales in most coating categories. Exceptions include ground traffic marking coatings and spatter coatings. Water-based products are most common in ground traffic marking coatings (22 of 38 products), non-flat plants (16 of 194 products), flat paints (8 of 79 products), and spatter coatings (4 of 7 products).

PRODUCTS SOLD EXCLUSIVELY IN THE BAAQMD

Regulation 8, Rule 49, adopted in 1990 in the Bay Area Air Quality Management District (BAAQMD) to limit emissions of organic compounds from the use of hand-held aerosol paint products, has resulted in several products being offered exclusively in the BAAQMD. A copy of the rule is provided in Appendix B. Manufacturers reported that these products were sold only in the BAAQMD. Table 5 compares these products with those sold statewide (including the BAAQMD). There are 44 products sold exclusively in the BAAQMD, representing approximately five percent of the total California sales. However, some products that comply with the BAAQMD regulation are sold statewide or nationwide, including the Bay Area, and as such are not classified as "products sold exclusively in the BAAQMD." The exclusive products are more likely to be water based (15.5% versus 9.1% for statewide sales), especially in the clear coating, flat paint, and non-flat paint categories.

Table 1a. California Companies Participating in the 1992 Aerosol Paint Survey

BAF Industries
Behr Process Corporation
Deft, Inc.*
Delta Technical Coatings
Duncan Enterprises*
Dunn-Edwards Corporation
Flecto Company, Inc.*
Kop-Coat, Inc.*
Leggett & Platt, Inc.
Life Paint Company*
Mann Brothers/Division of Surface Protection, Inc.
Products/Techniques, Inc.*
Zynolyte Products Company

* Company reported as a small business.

Table 1b. Non California Companies Participating in the 1992 Aerosol Paint Survey

3M	Mohawk Finishing Products/Floquil
ACE Products-Private Label	Plasti-Kote Company, Inc.*
Aerosol Maintenance Products*	PPG Industries, Inc.
Aervoe-Pacific Company*	Raabe Corporation*
Barrier International Corporation*	Revere Products*
Chase Products Company*	Rudd Company, Inc.*
Coverite/Division of US Hobby*	Rust-Oleum Corporation
DAP, Inc.*	Seymour of Sycamore
Drummond American Corporation	Sherwin Williams-Private Label
Dynatron/Bondo Corporation	Sprayon, Industrial
Floquil-Pollys Color Corp/Mohaw*	Star Finishing Products, Inc.*
Forrest Paint Company*	State Chemical Mfg. Company
Imperial, Inc.*	Taylor Made Products*
Jacobsen Division of Textron, Inc.	Testor Corporation/Pactra, Inc.*
Johnstone Supply	The Valspar Corporation
K-G Packaging/Division CCL	Thompson Formby, Inc.*
K-MART-Private Label	Tru-Test Manufacturing Company
Klinger Paint Company, Inc.*	United Coatings, Inc.
Krylon/Dupli-Color Prod	William Zinsser & Company, Inc.
Kurfees Coatings*	Xim Products, Inc.*
Loctite Corporation	Zehrung Corporation*
Marson Corporation*	ZRC Products Company*
Minwax Company, Inc.	

* Company reported as a small business.

Table 2. Number of Products Reported by Participating Companies

Number of Products	Number of Companies	Percent of Companies
1-9	37	64%
10-19	8	14%
20-99	10	17%
100-199	2	3%
200-299	1	2%
Total	58	100%

1992 ARB Aerosol Paint Survey

Table 3. Summary of Results from the 1992 Aerosol Paint Survey

Coating Type	No. of Companies	No. of Products	Total Sales (lbs/yr)	Min VOC (%)	Max VOC (%)	SW Avg VOC[a] (%)	Estimated Total VOC Emissions (lbs/yr)	MC[b] (lbs/yr)	TCA[c] (lbs/yr)	SW Avg Solids (%)	SW Avg Water (%)	SW Avg Other[d] (%)	SW Avg Propellent (%)
Clear Coatings	27	102	634,696	50.5	96.7	84.7	537,593	2,948	455	13.4	1.4	0.5	25.5
Flat Paint Products	18	79	1,604,160	42.4	95.2	75.7	1,213,885	11,323	19,742	21.2	1.2	1.9	24.6
Fluorescent	14	19	258,685	54.0	84.0	70.3	181,959	0	7,557	20.2	6.5	2.9	29.9
Ground Traffic Markings	14	38	634,051	44.0	76.0	58.2	368,809	1,633	0	30.0	11.6	0.3	22.3
Metallic Coatings	17	85	797,788	46.0	95.0	83.3	664,491	6,669	0	15.9	--	0.8	26.0
Non-Flat Paint Products	29	194	9,600,894	43.7	95.0	76.8	7,375,896	86,802	132,769	18.3	2.6	2.3	26.5
Primer	23	84	807,138	39.0	96.0	71.8	579,416	9,294	0	26.9	0.2	1.2	25.0
Vinyl/Fabric/Polycarbonate	6	33	57,042	66.5	95.5	91.6	52,231	0	0	8.4	--	0.0	22.6
Engine Enamel	6	8	178,002	50.5	89.5	78.6	139,931	0	6,982	17.5	--	3.9	25.0
Industrial	9	32	57,044	62.5	93.0	82.3	46,957	0	0	17.6	0.0	0.0	24.1
Auto Body Primer	8	28	824,067	52.0	97.7	76.8	632,662	7,647	0	22.3	0.0	0.9	22.0
Auto Bumper and Trim	5	11	89,583	62.0	98.1	72.2	64,697	5,082	2,345	19.5	--	8.3	26.1
Glass Coating	4	5	6,778	69.0	95.0	84.6	5,734	0	500	8.0	--	7.4	31.9
High Temperature Coating	14	29	383,326	59.9	93.8	81.8	313,370	0	12,812	14.9	--	3.3	24.9
H/M/C[e] Enamel	6	167	131,539	58.0	90.0	77.4	101,820	0	1,051	21.7	--	0.9	25.6
H/M/C Lacquer	6	26	19,171	63.0	94.2	84.9	16,270	0	154	14.3	--	0.8	20.5
H/M/C Clear, Metallic	4	63	461,587	74.2	96.4	88.7	409,530	10,516	1	9.0	--	2.3	26.9
Spatter Coating	5	6	217,348	32.0	63.0	58.8	127,868	0	0	17.8	23.4	0.0	20.6
Other Specialty Coatings[f]	22	84	798,064	44.0	97.0	77.7	620,248	4,012	6,870	19.0	1.9	1.4	21.4
Grand Total		1,093	17,560,961			76.6	13,453,367	145,926	191,239	19.0	2.5	1.9	25.5

(a) Sales weighted average percent (by weight) of volatile organic compounds (VOC).
(b) MC = Methylene Chloride.
(c) TCA = 1,1,1-Trichloroethane.
(d) Other = Ingredients other than VOCs, solids, and water.
(e) H/M/C = Hobby/Model/Craft.
(f) Other speciality coatings include art varnish, corrosion resistant brass/bronze/copper coatings, marine spar finish, clear shellac, pigmented shellac, webbing/veiling coating, wood stain, workable art fixative, automotive finish, aviation propeller coating, aviation zinc primer, floral spray, slip resistant epoxy, weld-through primer, wood touch-up/repair/restoration coating.

1992 ARB Aerosol Paint Survey

Table 4. Total Sales, Estimated VOC Emissions, and Percent Solids for Water-Based and Solvent-Based Coatings

Coating Type	Total (lbs/yr)	Water-Based				Solvent-Based			
		Sales (lbs/yr)	Estimated VOC Emissions (lbs/yr)	SW Avg Pct. VOC[a] (%)	SW Avg Pct. Solids (%)	Sales (lbs/yr)	Estimated VOC Emissions (lbs/yr)	SW Avg Pct. VOC (%)	SW Avg Pct. Solids (%)
Clear Coatings	634,696	35,234	23,204	65.9	9.4	599,462	514,389	85.8	13.6
Flat Paint Products	1,604,160	74,909	39,932	53.3	21.4	1,529,251	1,173,953	76.8	21.2
Fluorescent	258,685	56,257	30,387	54.0	16.0	202,428	151,572	74.9	21.4
Ground Traffic Marking Coatings	634,051	305,228	161,950	53.1	22.9	328,823	206,859	62.9	36.6
Metallic Coatings	797,788	0	--	--	--	797,788	664,491	83.3	15.9
Non-Flat Paint Products	9,600,894	887,835	464,211	52.3	19.4	8,713,059	6,911,684	79.3	18.2
Primer	807,138	7,726	5,252	68.0	14.8	799,412	574,164	71.8	27.0
Vinyl/Fabric/Polycarbonate	57,042	0	--	--	--	57,042	52,231	91.6	8.4
Engine Enamel	178,002	0	--	--	--	178,002	139,931	78.6	17.5
Industrial	57,044	17,290	14,452	83.6	16.3	39,754	32,505	81.8	18.2
Auto Body Primer	824,067	54	35	65.0	18.0	824,013	632,627	76.8	22.3
Automotive Bumper and Trim Product	89,583	0	--	--	--	89,583	64,697	72.2	19.5
Glass Coating	6,778	0	--	--	--	6,778	5,734	84.6	8.0
High Temperature Coating	383,326	0	--	--	--	383,326	313,370	81.8	14.9
H/H/C[b] Enamel	131,539	0	--	--	--	131,539	101,820	77.4	21.7
H/H/C Lacquer	19,171	0	--	--	--	19,171	16,270	84.9	14.3
H/H/C Clear, Metallic	461,587	0	--	--	--	461,587	409,530	88.7	9.0
Spatter Coating	217,348	215,650	127,057	58.9	17.5	1,698	812	47.8	52.2
Other Specialty Coatings[c]	798,064	48,450	24,054	49.6	18.3	749,614	596,194	79.5	19.0
Total/Average	17,560,961	1,648,633	890,533	54.0	19.5	15,912,328	12,562,834	79.0	18.9

(a) Sales weighted average percent (by weight) of volatile organic compounds (VOC).

(b) H/H/C = Hobby/Model/Craft.

(c) Other speciality coatings include art varnish, corrosion resistant brass/bronze/copper coatings, marine spar finish, clear shellac, pigmented shellac, webbing/veiling coating, wood stain, workable art fixative, automotive finish, aviation propeller coating, aviation zinc primer, floral spray, slip resistant epoxy, weld-through primer, wood touch-up/repair/restoration coating.

Table 5. Comparison of Products Sold Statewide with Products Sold Exclusively in the BAAQMD

Coating Type	Statewide Sales			Exclusive BAAQMD[a] Sales		
	Number of Products	Coating Sales (lbs/yr)	Sales of Water-Based Products (%)[b]	Number of Products[c]	Coating Sales (lbs/yr)	Sales of Water-Based Products(%)[b]
Clear Coatings	98	572,945	5.2	4	(d)	(d)
Flat Paints	73	1,438,204	3.1	6	165,956	18.1
Fluorescent Coatings	19	258,685	21.7	0	--	--
Ground Traffic Marking	38	634,051	48.1	0	--	--
Metallic Coatings	79	777,738	0	6	(d)	(d)
Non-Flat Paints	182	9,158,507	8.6	12	442,387	22.0
Primers	77	758,678	1.0	7	48,460	0.6
Specialty Coatings[e]	483	3,107,323	9.1	9	116,227	0.1
Total/Average	1,049	16,706,130	9.1	44	854,831	15.5

(a) BAAQMD = Bay Area Air Quality Management District.
(b) Percent of total category sales that contain water.
(c) Number of products sold exclusively in the BAAQMD. Complying products in each category that are available statewide or nationwide are also sold in the Bay Area.
(d) Data considered proprietary by some manufacturers.
(e) Specialty coatings include vinyl/fabric/polycarbonate coating, engine enamel coating, industrial coating, auto body primer, automotive bumper and trim coating, glass coating, high temperature coating, hobby/model/craft enamel coating, hobby/model/craft lacquer coating, hobby/model/craft clear metallic coating, spatter coating, art varnish, corrosion resistant brass/bronze/copper coatings, marine spar finish, clear shellac, pigmented shellac, webbing/veiling coating, wood stain, workable art fixative, automotive finish, aviation propeller coating, aviation zinc primer, floral spray, slip resistant epoxy, weld-through primer, wood touch-up/repair/restoration coating.

1992 ARB Aerosol Paint Survey

California Sales of Aerosol Paints by Company Headquarter Location*

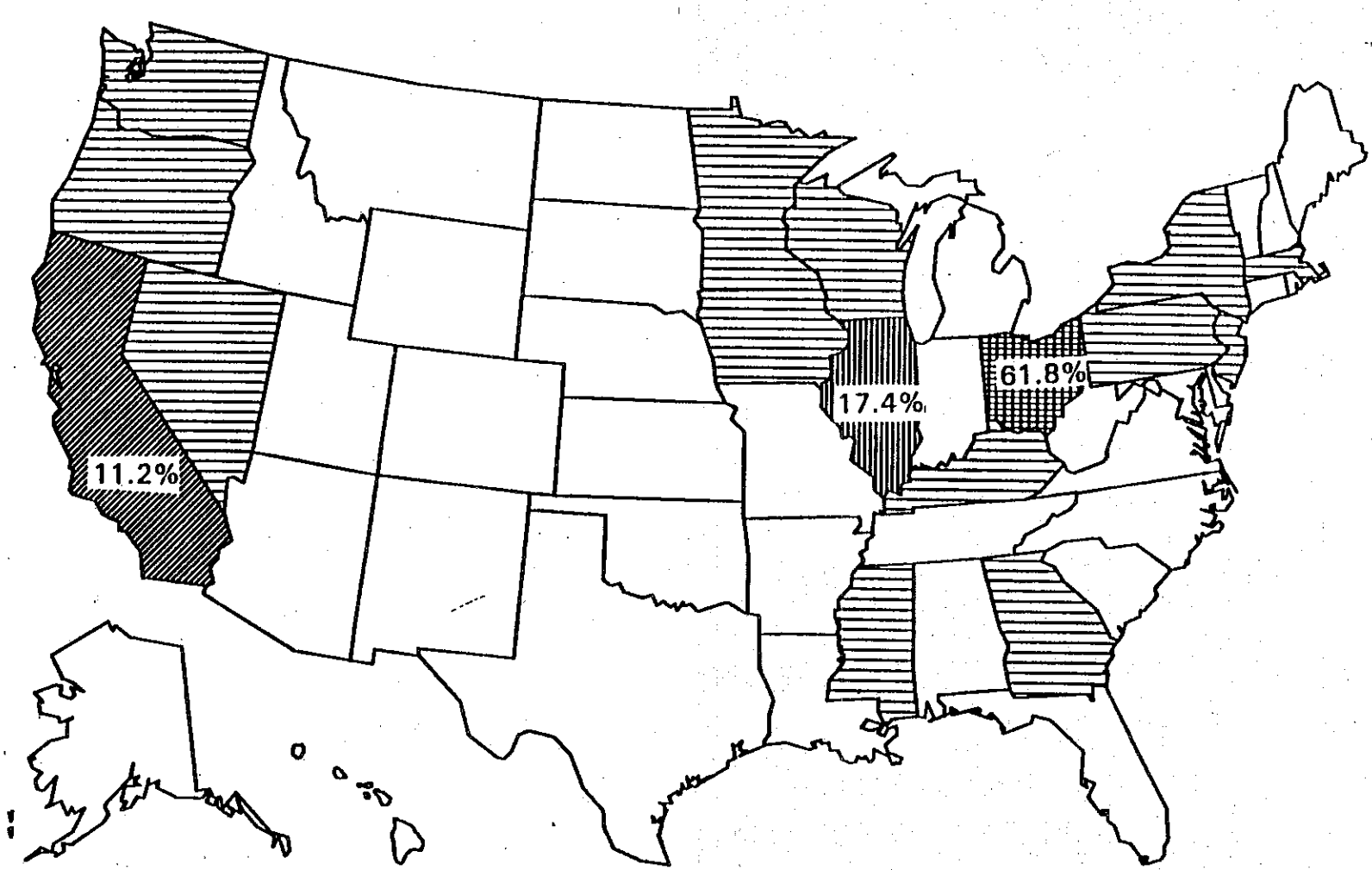

Figure 1.

* Shaded states other than California, Ohio, and Illinois account for less than ten percent of aerosol paints sold in California.

1992 ARB Aerosol Paint Survey

Percentage of California Sales of Aerosol Paints Contributed by Each Coating Category

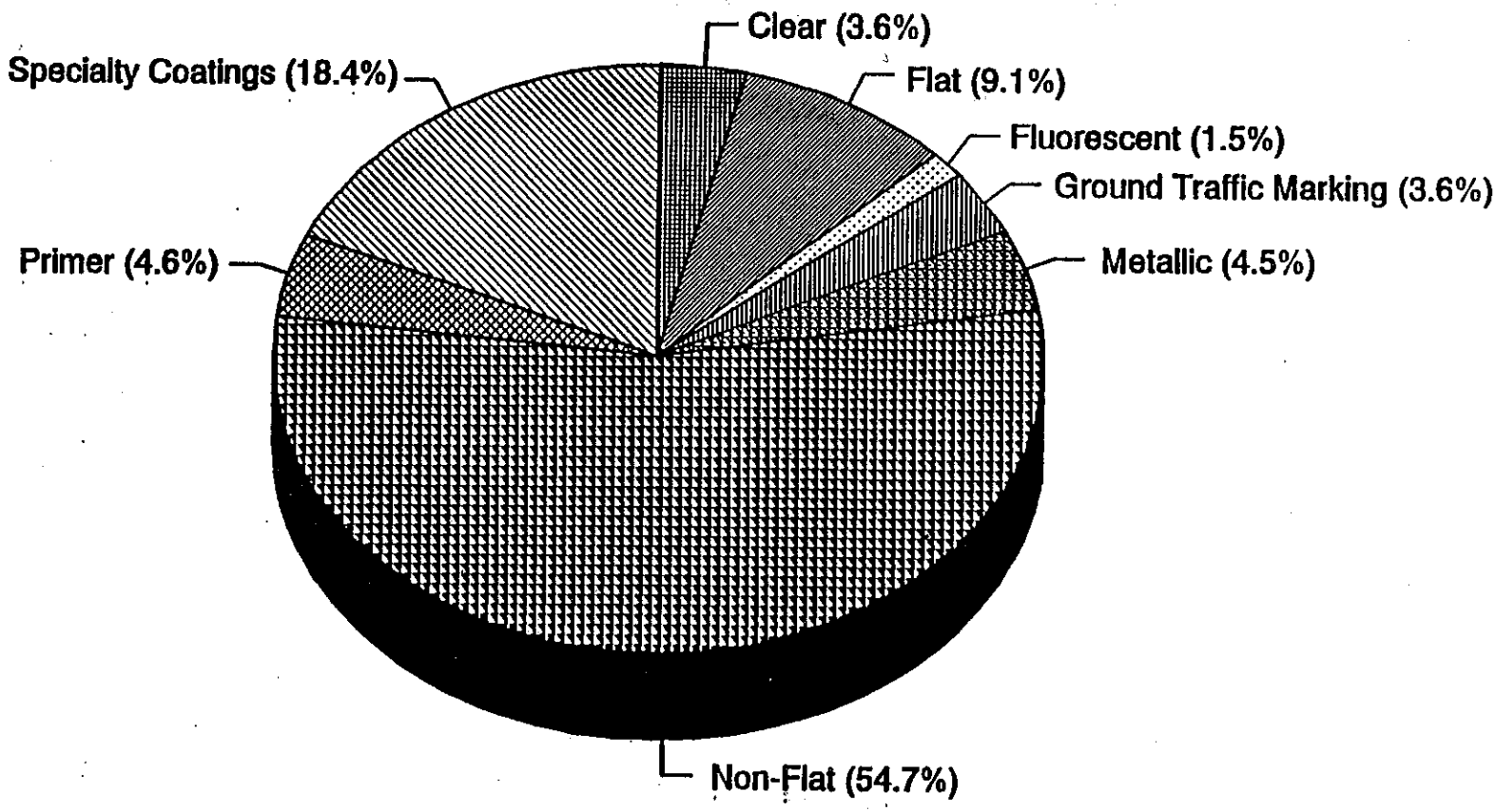

Figure 2.

1992 ARB Aerosol Paint Survey

Percentage of Estimated Total VOCs from California Sales of Aerosol Paints Contributed by Each Coating Category

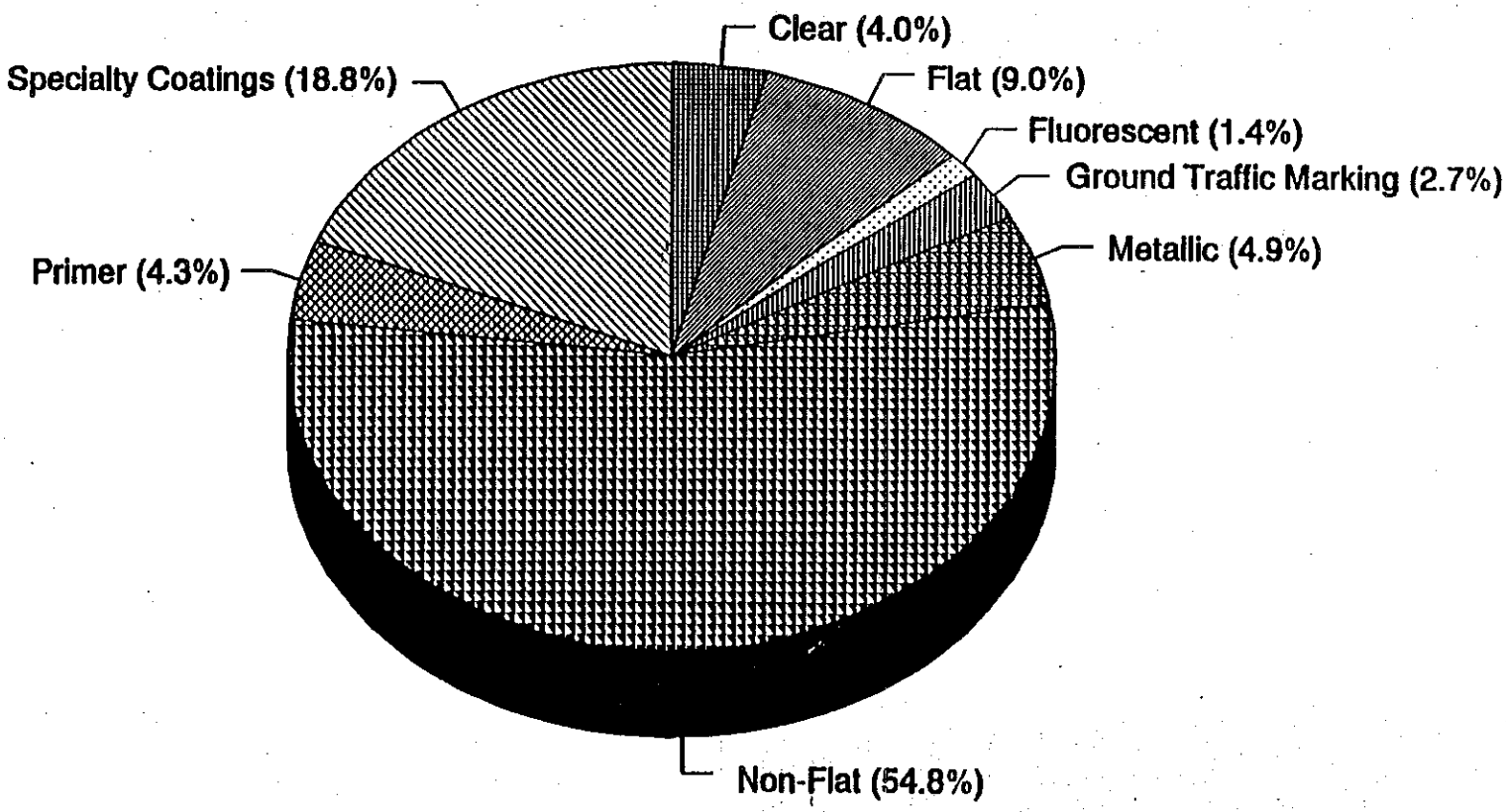

Figure 3.

GLOSSARY OF ABBREVIATIONS

ARB	=	Air Resources Board
BAAQMD	=	Bay Area Air Quality Management District
MC	=	Methylene Chloride
TCA	=	Trichloroethane
VOCs	=	Volatile Organic Compounds

APPENDIX F:

WORKSHOP ANNOUNCEMENTS

STATE OF CALIFORNIA

PETE WILSON, Governor

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

October 4, 1993

Dear Sir or Madam:

This letter is to invite your participation in a public workshop to discuss the development of a regulation to reduce volatile organic compound (VOC) emissions from aerosol spray paints. This is the fourth workshop conducted by the Air Resources Board (ARB) to discuss this emissions source. We are holding this workshop to receive comments on a preliminary draft regulation which will be sent to you in a separate mailing prior to the workshop. The draft regulation will be modified to reflect comments received during and after the third workshop, and possibly in response to pending legislation.

The workshop is scheduled for the following time, date, and location:

Time: 9:30 a.m. - 3:00 p.m.
Date: November 10, 1993
Location: Cal/EPA - Air Resources Board
Lower Level Board Hearing Room
2020 "L" Street,
Sacramento, CA 95814

A copy of the preliminary workshop agenda is attached. After a brief introduction, the ARB staff will discuss the preliminary results of the Aerosol Paint Survey conducted last Spring and describe the draft aerosol paint regulation. Following the ARB presentation there will be an open discussion of the draft regulation to allow you an opportunity to discuss the technical merits of the proposal.

We would like to make you aware that there is a workshop on the previous day at the same location to discuss the ARB's draft Alternative Compliance Plan or ACP. A workshop notice regarding the ACP will be mailed to you shortly. The ACP would provide an alternative to complying with the ARB's consumer products regulation and aerosol paint regulation. These workshops were scheduled together for the convenience of those wanting to attend both workshops.

I hope you will be able to attend this workshop. It is not necessary for you to notify us that you will attend. If you are unable to attend this meeting, I encourage you to provide written comments anytime during the regulatory process. Your comments can be mailed to the following address:

Solvents Control Section
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815
ATTN: Comments on Aerosol Paint Regulation

If you have any questions regarding this workshop or questions regarding the development of the aerosol paint regulation, please contact Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 327-1517 or Peggy Taricco, Manager, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 322-8283.

Sincerely,

Dean C. Simeroth, Chief
Criteria Pollutants Branch
Stationary Source Division

Attachment

STATE OF CALIFORNIA
AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

PETE WILSON, Governor

July 26, 1993

Dear Sir or Madam:

This letter is to invite your participation in a public workshop to discuss the development of a regulation to reduce volatile organic compound (VOC) emissions from aerosol spray paints. This is the third workshop conducted by the Air Resources Board (ARB) to discuss this emissions source. We are holding this workshop to receive comments on a preliminary draft regulation which will be sent to you in a separate mailing prior to the workshop. The draft regulation will be modified to reflect comments received during and after the second workshop on June 24, 1993.

The workshop is scheduled for the following time, date, and location:

Time: 9:30 a.m. - 4:30 p.m.
Date: August 26, 1993
Location: Cal/EPA - Air Resources Board
Lower Level Board Hearing Room
2020 "L" Street,
Sacramento, CA 95814

A copy of the preliminary workshop agenda is attached. After a brief introduction, the ARB staff will discuss the draft aerosol paint regulation. Following the ARB presentation there will be an open discussion of the draft regulation to allow you an opportunity to discuss the technical merits of the proposal.

I hope you will be able to attend this workshop. It is not necessary for you to notify us that you will attend. If you are unable to attend this meeting, I encourage you to provide written comments anytime during the regulatory process. Your comments can be mailed to the following address:

Solvents Control Section
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815
ATTN: Comments on Aerosol Paint Regulation

If you have any questions regarding this workshop or questions regarding the development of the aerosol paint regulation, please contact Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 327-1517 or Peggy Taricco, Manager, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 322-8283.

Sincerely,

Dean C. Simeroth, Chief
Criteria Pollutants Branch
Stationary Source Division

Attachment

STATE OF CALIFORNIA

PETE WILSON, Governor

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

May 25, 1993

Dear Sir or Madam:

This letter is to invite your participation in a public workshop to discuss the development of a regulation to reduce volatile organic compound (VOC) emissions from aerosol spray paints. This is the second workshop conducted by the Air Resources Board (ARB) to discuss potential control measures for this emissions source. We are holding this workshop to receive comments on the enclosed preliminary draft regulation and to discuss alternative regulatory options that may be available.

The workshop is scheduled for the following time, date, and location:

Time: 9:30 a.m. - 4:30 p.m.
Date: June 24, 1993
Location: Cal EPA - Air Resources Board
Lower Level Board Hearing Room
2020 "L" Street,
Sacramento, CA 95814

A copy of the preliminary workshop agenda is attached. After a brief introduction, the ARB staff will discuss the draft aerosol paint regulation. Following the ARB presentation there will be an open discussion of the draft regulation to allow you an opportunity to discuss the technical merits of the proposal as well as share your thoughts about the overall regulatory approach. Please keep in mind that the language in the draft regulation is not final, and is only for discussion purposes.

I hope you will be able to attend this workshop. It is not necessary for you to notify us that you will attend. If you are unable to attend this meeting, I encourage you to provide written comments anytime during the regulatory process. Your comments can be mailed to the following address:

Solvents Control Section
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815
ATTN: Comments on Aerosol Paint Regulation

If you have any questions regarding this workshop or questions regarding the development of the aerosol paint regulation, please contact Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 327-1517 or Peggy Taricco, Manager, Solvents Control Section, at (916) 322-8283.

Sincerely,

Dean C. Simeroth, Chief
Criteria Pollutants Branch
Stationary Source Division

Enclosure

STATE OF CALIFORNIA

PETE WILSON, Governor

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

March 22, 1993

Dear Sir or Madam:

This letter is to invite your participation in a public workshop to discuss the development of a regulation to reduce volatile organic compound (VOC) emissions from aerosol spray paints. As you may know, recent legislation has been passed granting the California Air Resources Board (ARB/Board) authority to regulate the VOC emissions from aerosol paints. We are holding this workshop to better understand the aerosol paint industry before drafting a proposed rule.

The workshop is scheduled for the following time, date, and location:

Time: 9:30-4:30
Date: April 14, 1993
Location: California Environmental Protection Agency
California Air Resources Board
Lower Level Board Hearing Room
2020 "L" Street,
Sacramento, CA 95814

Attached is a copy of the workshop agenda. After a brief introduction by the ARB, members of the aerosol paint industry will deliver presentations designed to provide an introduction to the industry. The presentations will provide information on the different aerosol paint products available, the manufacturing process involved in producing an aerosol paint product, and the various regulations that affect the industry. The second half of the workshop is an open discussion period to elicit comments on various regulatory topics including industry's experience with existing district regulations, possible approaches for a statewide regulation, and future effective standards or incentive programs to encourage continuing research and development toward low-VOC products.

I hope you will be able to attend this workshop. This workshop will give you the opportunty to share your concerns and technical information with ARB staff. It is not necessary for you to notify us that you plan on attending. For those of you who are unable to attend this meeting, I encourage you to provide written comments anytime during the regulatory process. Your comments can be mailed to the following address:

Solvents Control Section
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815
ATTN: Comments on Aerosol Paint Regulation

If you have any questions regarding the workshop or questions regarding the development of the aerosol paint regulation, please contact Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 327-1517 or Peggy Vanicek, Manager, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 322-8283.

Sincerely,

Ronald A. Friesen
Assistant Chief
Stationary Source Division

Attachment

STATE OF CALIFORNIA
AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

PETE WILSON, Governor

August 18, 1993

Dear Sir or Madam:

This letter is a follow-up to the recent workshop notice you received regarding the development of an aerosol coatings regulation. As explained in that workshop notice, a revised draft regulation was to be provided before the third workshop on August 26, 1993. This is to provide you with a copy of the draft regulation and to request your comments.

Several changes have been made to the draft regulation since the last workshop. Future effective standards are proposed for selected aerosol coating categories, additional specialty coatings categories have been added, the volatile organic compound (VOC) standard for fluorescent paints has been raised to 75% from 65%, and the "special recognition label" section has been significantly modified. Many other changes are currently under consideration, but before they can be incorporated into the draft regulation, we would like to gather further information.

One area where I would like to specifically ask for your expertise is the special recognition label program. As you may be aware, the current draft of the aerosol coatings regulation contains a section which proposes to offer a special recognition label or emblem to products which have a VOC content that is significantly less than what will be required by the regulation. In order for this special recognition label to be effective, the label must be meaningful to the consumer. Since you, the manufacturers and marketers of aerosol coating products, are the most familiar with the marketplace and preferences of consumers, we are interested in your suggestions as to the design of the label.

As a reminder, the workshop is scheduled for the following time, date, and location:

Time: 9:30 a.m. - 4:30 p.m.
Date: August 26, 1993
Location: Cal/EPA - Air Resources Board
Lower Level Board Hearing Room
2020 "L" Street,
Sacramento, CA 95814

I hope you will be able to attend this workshop. If you are unable to attend this meeting, I encourage you to provide written comments anytime during the regulatory process. Your comments can be mailed to the following address:

Solvents Control Section
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815
ATTN: Paul Milkey

If you have any questions regarding this draft regulation or the upcoming workshop, please contact Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 327-1517 or Peggy Taricco, Manager, Solvents Control Section, Criteria Pollutants Branch, Stationary Source Division, at (916) 322-8283.

Sincerely,

Dean C. Simeroth, Chief
Criteria Pollutants Branch
Stationary Source Division

Enclosure

STATE OF CALIFORNIA

PETE WILSON, Gover

AIR RESOURCES BOARD
2020 L STREET
P.O. BOX 2815
SACRAMENTO, CA 95812

December 21, 1994

Dear Sir or Madam:

This letter is to invite your participation in a public workshop to discuss the development of an aerosol paint regulation. The Air Resources Board (ARB) is developing this regulation to reduce emissions of volatile organic compounds, and to fulfill the requirements of recent legislation (AB 2783, Sher; Stats. 1992, Chapter 945, and AB 1890, Sher; Stats. 1993, Chapter 1028). This is the sixth workshop conducted by the ARB to discuss this emissions source. At this workshop we will also be discussing proposed amendments to the Alternative Control Plan (ACP) regulation to allow aerosol paint manufacturers the opportunity to use the ACP if they so desire.

We have scheduled this next workshop at the following time and address:

Thursday, January 19, 1995
9:30 a.m. - 2:00 p.m.

Air Resources Board
2020 L Street, Lower Level
Sacramento, CA 95814

Enclosed is a preliminary workshop agenda and the most recent draft versions of the proposed aerosol paint regulation and amendments to the ACP regulation. Changes to the draft aerosol paint regulation made subsequent to the last workshop are noted in bold italics. The proposed amendments to the ACP regulation are noted as double-underlined large bold type.

We are expecting to propose the draft aerosol paint regulation to the Air Resources Board in March 1995. In anticipation of the hearing, we plan to release the "Initial Statement of Reasons for Proposed Rulemaking" in early February to provide an opportunity for comment prior to the public hearing. This will include both an executive summary and the technical support for the proposed regulation.

There is no need to notify us regarding your plans to attend the workshop. However, if you wish to make a presentation requiring audio/visual equipment or if you have any questions, please contact Mr. Paul Milkey, Air Resources Engineering Associate, Solvents Control Section, at (916) 327-1517.

If you cannot attend the workshop but would like to provide comments, you can contact Mr. Milkey or provide written comments to the following address:

Ms. Peggy Taricco, Manager
Solvents Control Section/Aerosol Paint Comments
Stationary Source Division
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812-2815

Thank you for your consideration. We look forward to continuing to work with you on the draft aerosol paint regulation.

Sincerely,

Genevieve Shiroma

Genevieve A. Shiroma, Chief
Toxic Air Contaminant
Identification Branch

Enclosures

APPENDIX G:

COST ANALYSIS CALCULATIONS

Appendix G contains the following:

G.1 Annualized One-Time Costs
G.2 Total Annual Costs
G.3 Cost-Effectiveness
G.4 Total Cost to Industry
G.5 Cost per Unit
G.6 Bay Area Cost Calculations

G.1 Annualized One-Time Costs

Total one time costs consist of capital expenditures for such things as new or modified equipment, research and development, testing, labeling and packaging changes. These costs are amortized over the estimated lifetime of the equipment or process. Amortization in this analysis is calculated for 5 year and 10 year lifetimes at an interest rate of 10 percent. The cost estimates for reformulation were obtained from responses to the 1993 ARB Cost Survey and are shown in Table X-1.

TABLE X-1

Total and Annualized One-Time Costs of Compliance with the 1996 VOC Standards in the Proposed ARB Aerosol Paint Regulation

Company Designation	Total One-time Costs	Annualized One-Time Costs[1]	
		5 year amortization	10 yr. amortization
A	$ 17,700	$ 4,671	$ 2,882
B	$139,799	$ 36,893	$ 22,759
C	$ 0	$ 0	$ 0
D	$ 72,500	$ 19,138	$ 11,803
E	$ 29,500	$ 7,785	$ 4,803
F	$4,130,000	$ 1,089,907	$ 672,364
G	$ 0	$ 0	$ 0

1 End of Year Payments $= \frac{i\,(1+i)^n}{(1+i)^n - 1}$

where: i = interest rate = 10%
n = number of years = 5 or 10 years

G.2 Total Annual Cost

The total annual cost is defined in this analysis as the sum of the annualized one-time costs (described in the previous table) and the annual recurring costs (continuous expenses for higher materials costs and other ongoing expenses related to the proposed regulation). The total annual cost is estimated using one time costs amortized over both 5 and 10 year periods.

TABLE X-2

Total Annual Cost of Compliance with the 1996 VOC Standards in the Proposed ARB Aerosol Paint Regulation

Company Designation	Annual One-Time Cost		Recurring Costs	Total Annual Cost	
	5 Year	10 Year		5 Year	10 year
A	$ 4,671	$ 2,882	$ 25,000	$ 29,671	$ 27,882
B	$ 36,893	$ 22,759	$ 0	$ 36,893	$ 22,759
C	$ 0	$ 0	$ 2,800	$ 2,800	$ 2,800
D	$ 19,138	$ 11,803	$ 0	$ 19,138	$ 11,803
E	$ 7,785	$ 4,803	$ 0	$ 7,785	$ 4,803
F	$ 1,089,907	$ 672,364	$ 2,885,000	$ 3,974,907	$ 3,557,364
G	$ 0	$ 0	$ 0	$ 0	$ 0

G.3 Cost-Effectiveness

The cost-effectiveness ratio (measured in dollars per pound of VOC reduced) is used by regulating agencies to evaluate the cost of control. The cost-effectiveness ratio used in this analysis is based on the respondents to the ARB Cost Survey. The overall cost-effectiveness was estimated by dividing the sum of the total annual costs reported by these companies by the estimated total emission reduction from these companies. The calculation is based on the following assumptions:

- The average VOC content per can is 76.7 percent (Battelle Report).
- The average reduction in VOC content per can for 1996 is 12 percent (ARB Survey).

- Ninety percent of reformulated products are sold only in California, with the remaining 10 percent sold nationally.
- California's population is 11.8% of the U.S. population.

Cost-Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

where:

Total Annual Cost	=	Sum of the total annual costs reported by the *respondents* to the ARB Cost Survey
	=	$4,071,194 (5 yr.) or $3,627,411 (10 yr.).
Annual Emission Reductions	=	the total annual emission reduction estimated from the *respondents* to the ARB Cost Survey, plus the emission reductions achieved by the 10% of products estimated to be sold nationally
	=	[6,043,022 lbs. VOC x 0.12 x 0.90] +[(6,043,022 x 0.12 x 0.10) / 0.118]
	=	1,267,191 lbs. VOC emissions reduced.

Cost-Effectiveness = $4,071,194 or $3,627,411÷ 1,267,191 lbs. VOC

= $3.21 per pound (5 year amortization of one-time costs) or

$2.86 per pound (10 year amortization of one-time costs)

G.4 Total Cost to Industry

The total cost to industry is an estimate of the collective costs of the regulation on all the industries affected by the regulation. This was estimated by multiplying the total emission reduction expected from the regulation by the cost effectiveness as follows:

Cost effectiveness	=	$3.21/lb. (5 yr. amortization) or $2.86/lb. (10 yr. amortization)
Total emission reduction	=	total emission reductions in California, plus the emission reductions achieved by the 10% of products estimated to be sold nationally
	=	[2,336,000 lbs. x 0.90] + [(2,336,000 x 0.10)/ 0.118]
	=	4,082,061 lbs.

Total Cost to Industry = $3.21/lb. or $2.86/lb. x 4,082,061 lbs. = $13,103,416 or $11,674,695.

G.5 Cost Per Unit

The cost per unit (or can) is calculated by dividing the total annual cost of all the companies that responded to the ARB Cost Survey by the total number of cans produced by these companies for sale in California (or nationally). This will result in a range of figures, depending of whether costs are spread out over California products only, or nationally.

- The average aerosol paint can has 0.5 pounds VOC
- The 1992 California sales figures reported in the ARB survey apply to 1996.
- California's population is 11.8% of the U.S. population.

Cost Per Unit = Total Annual Cost ÷ Total Number of Units

where:

Total Annual Cost	=	Sum of the total annual costs reported by the respondents to the ARB Cost Survey
	=	$4,071,194 (5 yr.); $3,627,411 (10 yr.).
Total Number of Units	=	the total number of units sold in California by the respondents to the ARB Cost Survey
	=	6,043,022 lbs. VOC ÷ 0.5 lbs. VOC per can of aerosol paint
	=	12,086,044 units aerosol paint(California)
		or 12,086,044 ÷ 0.118 = 102,424,102 units (U.S.)
Cost per Unit	=	$4,071,194(5 yr.) or $3,627,411 (10 yr.) ÷ 12,086,044 units (CA) or 102,424,102 units (U.S.).
	=	$0.34 per can (Costs spread over Calif. products , 5 year amortization of one-time costs); or
		$0.30 per can (Costs spread over Calif. products, 10 year amort. of one-time costs); or
		$0.04 per can (Costs spread over U.S., 5 year amortization of one-time costs);or
		$0.035 per can (Costs spread over U.S., 10 year amort. of one-time costs)

G.6 Bay Area Cost Effectiveness Ratio

The cost-effectiveness ratio for the BAAQMD was estimated by dividing the sum of the total annual costs to meet the BAAQMD regulation (as reported by the respondents to the ARB Cost Survey) by the estimated total emission reduction from these companies in the BAAQMD. The calculation is based on the following assumptions:

- The average reduction in VOC content per can is 20 percent (BAAQMD Aerosol Paint Staff Report).
- The sales in the Bay Area from the companies that responded to the ARB Cost Survey can be estimated by scaling down the 1992 California sales figures from the ARB Aerosol Paint Survey by population.

Cost-Effectiveness = Total Annual Cost ÷ Annual Emission Reductions

where:

Total Annual Cost	=	Sum of the total annual costs reported by the respondents to the ARB Cost Survey
	=	$1,699,256 (5 yr. amortization) or $1,495,660 (10 yr.)
Annual Emission Reductions	=	the total annual emission reduction estimated from the respondents to the ARB Cost Survey
	=	7,846,990 lbs aerosol paint x 0.85 lbs VOC/lb aerosol paint (BAAQMD Staff Report) x 20% (BAAQMD pop/CA pop.) x 20% emission reduction
	=	266,798 lbs. VOC emissions reduced.

Cost-Effectiveness = $1,699,256 or $1,495,660÷ 266,798 lbs. VOC

= $6.37 per pound (5 year amortization of one-time costs) or

$5.60 per pound (10 year amortization of one-time costs)

APPENDIX H:

PROPOSED AMENDMENTS TO THE ALTERNATIVE CONTROL PLAN REGULATION

PROPOSED AMENDMENTS TO THE ALTERNATIVE CONTROL PLAN FOR CONSUMER PRODUCTS

NOTE: This regulatory action proposes a number of amendments to the Alternative Control Plan for Consumer Products, sections 94950-94555, Title 17, California Code of Regulations (ACP Regulation). In the attached document, the proposed amendments to the ACP regulation are shown in underline to indicate additions to the text and in ~~strikeout~~ to indicate deletions.

The Air Resources Board approved the ACP Regulation at a public hearing held on September 22, 1994. The ACP Regulation was approved with a number of modifications to the originally proposed regulatory language. The modified regulatory language was made available for public comment for a 15-day period between December 5 and December 20, 1994. To avoid confusion and improve clarity, these 15-day changes are not separately highlighted in the attached document. The ACP Regulation has not yet been submitted to the Office of Administrative Law for final approval, and has not yet become legally effective.

ALTERNATIVE CONTROL PLAN REGULATION FOR CONSUMER PRODUCTS AND AEROSOL COATING PRODUCTS

Amend Article 4. Alternative Control Plan, Sections 94540-94555, Title 17, California Code of Regulations, to read as follows:

SUBCHAPTER 8.5 CONSUMER PRODUCTS

Article 4. Alternative Control Plan

94540. Purpose

The purpose of this article is to provide an alternative method to comply with the VOC standards for consumer products and aerosol coating products that are specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, sections 94507-94517 and 94520-94528. This alternative is provided by allowing responsible ACP parties the option of voluntarily entering into ~~an~~ separate "alternative control plans" (ACPs) for consumer products and aerosol coating products, as specified in this article.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94541. Applicability

Only responsible ACP parties for consumer products or aerosol coating products may enter into an ACP. An ACP shall include only those consumer products or only those aerosol coating products which are subject to the VOC standards specified in sections 94509 or 94522, Title 17, California Code of Regulations. Consumer products and aerosol coating products shall not be included together in the same ACP.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94542. Definitions

(a) For the purposes of this article, the following definitions shall apply:

(1) "ACP Emissions" means the sum of the VOC emissions from every ACP product subject to an Executive Order approving an ACP, during the compliance period specified in the Executive Order, expressed to the nearest pound of VOC and calculated according to the following equation:

$$ACP\ Emissions = (Emissions)_1 + (Emissions)_2 + \cdots + (Emissions)_N$$

where,

$$Emissions = \frac{[VOC\ Content] \times [Enforceable\ Sales]}{100}$$

For all products except for charcoal lighter material products and aerosol coating products:

$$VOC\ Content = \frac{[(B - C) \times 100]}{A}$$

A = net weight of unit (excluding container and packaging)
B = total weight of all VOCs per unit, as defined in subsection (a)(31) of this section
C = total weight of all exempted VOCs per unit, as specified in section 94510

For charcoal lighter material products only:

$$VOC\ Content = \frac{[Certified\ Emissions \times 100]}{Certified\ Use\ Rate}$$

Certified Emissions = the emissions level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound CH_2 per start.

Certified Use Rate = the usage level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance

Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound certified product used per start.

For aerosol coating products only:

VOC Content = Percent VOC By Weight

"Percent VOC By Weight" shall have the same meaning as defined in section 94521(a)(46);

For all products:

Enforceable Sales = the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding container and packaging).

1,2,...N = each product in an ACP up to the maximum N.

(2) "ACP Limit" means the maximum allowable ACP Emissions during the compliance period specified in an Executive Order approving an ACP, expressed to the nearest pound of VOC and calculated according to the following equation:

$$ACP\ Limit = (Limit)_1 + (Limit)_2 + \ldots + (Limit)_N$$

where,

$$Limit = \frac{[ACP\ Standard] \times [Enforceable\ Sales]}{100}$$

Enforceable Sales = the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding container and packaging).

ACP Standard = either the ACP product's Pre-ACP VOC Content, or the applicable VOC standard specified in sections 94509 or 94522, whichever is the lesser of the two.

Pre-ACP
VOC Content = the lowest VOC content which the ACP product had between January 1, 1990 and the date on which the application for a proposed ACP is submitted to the Executive Officer, based on either the data on the product obtained from the March 12, 1991 Air Resources Board Consumer Products Survey, the data on the product obtained from the February 25, 1993 Air Resources Board Aerosol Paint Survey, or other accurate records available to the Executive Office, whichever yields the lowest VOC content for the product.

1,2,...N = each product in an ACP up to the maximum N.

(3) "ACP Product" means any "consumer product" or any "aerosol coating product" subject to the VOC standards specified in sections 94509 or 94522, except those products that have been exempted under sections 94510 or 94523, or exempted as Innovative Products under section 94511.

(4) "ACP Reformulation" or "ACP Reformulated" means the process of reducing the VOC Content of an ACP product, within the period that an ACP is in effect, to a level which is less than the current VOC content of the product.

(5) "ACP Standard" means either the ACP product's Pre-ACP VOC Content or the applicable VOC standard specified in sections 94509 or 94522, whichever is the lesser of the two.

(6) "Alternative Control Plan" or "ACP" means any emissions averaging program approved by the Executive Officer pursuant to the provisions of this article.

(7) "Compliance Period" means the period of time, not to exceed one year, for which the ACP Limit and ACP Emissions are calculated and for which compliance with the ACP Limit is determined, as specified in the Executive Order approving an ACP.

(8) "Contact Person" means a representative(s) that has been designated by the responsible ACP party for the purpose of reporting or maintaining any information specified in the Executive Order approving an ACP.

(9) "Date-Code" means the day, month and year on which the ACP product was manufactured, filled, or packaged, or a code indicating such a date.

(10) "Enforceable Sales" means the total amount of an ACP product sold for use in California, during the applicable compliance period specified in the Executive Order approving an ACP, as determined through enforceable sales records (expressed to the nearest pound, excluding product container and packaging).

(11) "Enforceable Sales Record" means a written, point-of-sale record or any other Executive Officer-approved system of documentation from which the mass, in pounds (less product container and packaging), of an ACP product sold to the end user in California during the applicable compliance period can be accurately documented. For the purposes of this article, "enforceable sales records" include, but are not limited to, the following types of records:

(A) accurate records of direct retail or other outlet sales to the end user during the applicable compliance period;

(B) accurate compilations, made by independent market surveying services, of direct retail or other outlet sales to the end users for the applicable compliance period, provided that a detailed method which can be used to verify any data comprising such summaries is submitted by the responsible ACP party and approved by the Executive Officer;

(C) any other accurate product sales records approved by the Executive Officer as meeting the criteria specified in this subsection (a)(11).

(D) for pesticides only, accurate mill assessment records for economic poisons, verified by the California Department of Pesticide Regulations, which cover the sales of ACP pesticide products during the applicable compliance period.

(12) "Executive Order" means the document signed by the Executive Officer which includes the conditions and requirements of the ACP, and which allows manufacturers to sell ACP products in California pursuant to the requirements of this article.

(13) "Gross California Sales" means the estimated total California sales of an ACP product during a specific compliance period (expressed to the nearest pound), based on either of the following methods, whichever the responsible ACP party demonstrates to the satisfaction of the Executive Officer will provide an accurate California sales estimate:

(A) apportionment of national or regional sales of the ACP product to California sales, determined by multiplying the average national or regional sales of the product by the fraction of the national or regional population, respectively, that is represented by California's current population; or

(B) any other documented method which provides an accurate estimate of the total current California sales of the ACP product.

(14) "LVP" or "LVP Compound" means a low vapor pressure VOC which:

(A) has a vapor pressure less than 0.1 mm Hg at 20 degrees Centigrade, or

(B) if the vapor pressure is unknown, has more than 12 carbon atoms.

(15) "LVP Content" means the total weight, in pounds, of LVP compounds in an ACP product multiplied by 100 and divided by the product's total net weight (in pounds, excluding container and packaging), expressed to the nearest 0.1.

(16) "Missing Data Days" means the number of days in a compliance period for which the responsible ACP party has failed to provide the required Enforceable Sales or VOC Content data to the Executive Officer, as specified in the Executive Order approving an ACP.

(17) "One-product business" means a responsible ACP party which sells, supplies, offers for sale, or manufactures for use in California:

(A) only one distinct ~~consumer~~ ACP product, sold under one product brand name, which is subject to the requirements of sections 94509 or 94522, or

(B) only one distinct ACP product line subject to the requirements of sections 94509 or 94522, in which all the ACP products belong to the same product category(ies) and the VOC Contents in the products are within 98.0% and 102.0% of the arithmetic mean of the VOC Contents over the entire product line.

(18) "Pre-ACP VOC Content" means the lowest VOC content of an ACP product between January 1, 1990 and the date on which the application for a proposed ACP is submitted to the Executive Officer, based on either the data on the product obtained from the March 12, 1991 Air Resources Board Consumer Products Survey, the data on the product obtained from the February 25, 1993 Air Resources Board Aerosol Paint Survey, or other accurate records available to the Executive Officer, whichever yields the lowest VOC content for the product.

(19) "Product Line" means a group of products of identical form and function belonging to the same product category(ies).

(20) "Reconcile" or "Reconciliation" means to provide sufficient VOC emission reductions to completely offset any shortfalls generated under the ACP during an applicable compliance period.

(21) "Reconciliation of Shortfalls Plan" means the plan to be implemented by the responsible ACP party when shortfalls have occurred, as approved by the Executive Officer pursuant to section 94543(a)(7)(J).

(22) "Responsible ACP Party" means the company, firm or establishment which is listed on the ACP product's label. If the label lists two or more companies, firms, or establishments, the "responsible ACP party" is the party which the ACP product was "manufactured for" or "distributed by", as noted on the label.

(23) "Retail Outlet" means any establishment at which consumer products are sold, supplied, or offered for sale directly to consumers.

(24) "Shortfall" means the ACP Emissions minus the ACP Limit when the ACP Emissions were greater than the ACP Limit during a specified compliance period, expressed to the nearest pound of VOC. "Shortfall" does not include emissions occurring prior to the date that the Executive Order approving an ACP is signed by the Executive Officer.

(25) "Small Business" shall have the same meaning as defined in Government Code Section 11342(e).

(26) "Surplus Reduction" means the ACP Limit minus the ACP Emissions when the ACP Limit was greater than the ACP Emissions during a given compliance period, expressed to the nearest pound of VOC. Except as provided in section 94547(c), "Surplus Reduction" does not include emissions occurring prior to the date that the Executive Order approving an ACP is signed by the Executive Officer.

(27) "Surplus Trading" means the buying, selling, or transfer of Surplus Reductions between responsible ACP parties.

(28) "Total Maximum Historical Emissions" (TMHE), means the total VOC emissions from all ACP products for which the responsible ACP party has failed to submit the required VOC Content or Enforceable Sales records. The TMHE shall be calculated for each ACP product during each portion of a compliance period for which the responsible ACP has failed to provide the required VOC Content or Enforceable Sales records. The TMHE shall be expressed to the nearest pound and calculated according to the following calculation:

$$TMHE = (MHE)_1 + (MHE)_2 + \cdots + (MHE)_N$$

$$MHE = \left[\frac{Highest\ VOC\ Content \times Highest\ Sales}{100 \times 365}\right] \times Missing\ Data\ Days$$

where,

Highest
VOC Content = the maximum VOC content which the ACP product has contained in the previous 5 years, if the responsible ACP party has failed to meet the requirements for reporting VOC Content data (for any portion of the compliance period), as specified in the Executive Order approving the ACP, or the current actual VOC Content, if the responsible ACP party has provided all required VOC Content data (for the entire compliance period), as specified in the Executive Order.

Highest Sales = the maximum one-year Gross California Sales of the ACP product in the previous 5 years, if the responsible ACP party has failed to meet the requirements for reporting Enforceable Sales records (for any portion of the compliance period), as specified in the Executive Order approving the ACP, or the current actual one-year Enforceable Sales for the product, if the responsible ACP party has provided all required Enforceable Sales records (for the entire compliance period), as specified in the Executive Order approving the ACP.

Missing Data Days = the number of days in a compliance period for which the responsible ACP party has failed to provide the required Enforceable Sales or VOC Content data as specified in the Executive Order approving an ACP.

1, 2, ..., N = each product in an ACP, up to the maximum N, for which the responsible ACP party has failed to submit the required Enforceable Sales or VOC Content data as specified in the Executive Order approving an ACP.

(29) "VOC Content" means the total weight of VOC in a product, expressed to the nearest 0.1 pounds of VOC per 100 pounds of product and calculated according to the following equation:

For all products except for charcoal lighter material products and aerosol coating products:

$$VOC\ Content = \frac{[(B - C)\ x\ 100]}{A}$$

A = net weight of unit (excluding container and packaging)
B = total weight of all VOCs per unit, as defined in section 94542(a)(31)
C = total weight of all exempted VOCs per unit, as specified in section 94510

For charcoal lighter material products only,

$$VOC\ Content = \frac{[Certified\ Emissions\ x\ 100]}{Certified\ Use\ Rate}$$

Certified Emissions = the emissions level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001

pound CH_2 per start.

Certified Use Rate = the usage level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound certified product used per start.

For aerosol coating products only:

VOC Content = Percent VOC By Weight

"Percent VOC By Weight" shall have the same meaning as defined in section 94521(a)(46).

(30) "VOC Standard" means the maximum allowable VOC content for an ACP product, determined as follows:

(A) the applicable VOC Standard specified in sections 94509 or 94522, for all ~~consumer~~ ACP products except for charcoal lighter material;

(B) for charcoal lighter material products only, the VOC Standard for the purposes of this article shall be calculated according to the following equation:

$$VOC\ Standard = \frac{[0.020\ pound\ CH_2\ per\ start\ x\ 100]}{Certified\ Use\ Rate}$$

where,

0.020 = the certification emissions level for the Executive Officer-approved product, as specified in section 94509(h).

Certified Use Rate = the usage level for products approved by the Executive Officer under section 94509(h), as determined pursuant to South Coast Air Quality Management District Rule 1174 Ignition Method Compliance Certification Protocol (Feb. 27, 1991), expressed to the nearest 0.001 pound certified product used per start.

(31) "Volatile Organic Compound" or "VOC" shall have the same meaning as defined in section 94508(a)(90).

(32) "Working Day" means any day between Monday through Friday, inclusive, except for days that are federal holidays.

(b) The definitions set forth in sections 94508 and 94521, Title 17, California Code of

Regulations, shall also apply to this article.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94543. Requirements and Process for Approval of an ACP

(a) To be considered by the Executive Officer for approval, an application for a proposed ACP shall be submitted in writing to the Executive Officer by the responsible ACP party and shall contain all of the following:

(1) an identification of the contact persons, phone numbers, names and addresses of the responsible ACP party which is submitting the ACP application and will be implementing the ACP requirements specified in the Executive Order;

(2) a statement of whether the responsible ACP party is a small business or a one-product business, as defined in section 94542(a)(17) and (25);

(3) a listing of the exact ~~consumer~~ product brand name, form, available variations (flavors, scents, colors, sizes, etc.), and applicable product category(ies) for each distinct ACP product that is proposed for inclusion in the ACP;

(4) for each proposed ~~consumer~~ ACP product identified in subsection (a)(3) of this section, a demonstration to the satisfaction of the Executive Officer that the enforceable sales records to be used by the responsible ACP party for tracking product sales meet the minimum criteria specified in subsection (a)(4)(E) of this section. To provide this demonstration, the responsible ACP party shall do all of the following:

(A) provide the contact persons, phone numbers, names, street and mail addresses of all persons and businesses who will provide information that will be used to determine the Enforceable Sales;

(B) determine the Enforceable Sales of each product using enforceable sales records as defined in section 94542(a)(11);

(C) demonstrate, to the satisfaction of the Executive Officer, the validity of the Enforceable Sales based on enforceable sales records provided by the contact persons or the responsible ACP party;

(D) calculate the percentage of the Gross California Sales, as defined in section 94542 (a)(13) which is comprised of Enforceable Sales;

(E) determine which ~~consumer~~ ACP products have Enforceable Sales which are 75.0% or more of the Gross California Sales. Only ~~consumer~~ ACP products meeting this criteria shall be allowed to be sold in California under an ACP.

(5) for each of the ~~consumer~~ ACP products identified in subsection (a)(4)(E) of this section, the inclusion of the following:

(A) legible copies of the existing labels for each product;

(B) the VOC Content and LVP Content for each product. The VOC Content and LVP Content shall be reported for two different periods, as follows:

1. the VOC and LVP contents of the product at the time the application for an ACP is submitted, and

2. any VOC and LVP contents of the product, which have occurred at any time within the four years prior to the date of submittal of the application for an ACP, if either the VOC or LVP contents have varied by more than plus/minus ten percent (± 10.0%) of the VOC or LVP Contents reported in subsection (a)(5)(B)1. of this section.

(6) a written commitment obligating the responsible ACP party to date-code every unit of each ~~consumer~~ ACP product approved for inclusion in the ACP. The commitment shall require the responsible ACP party to display the date-code on each ~~consumer~~ ACP product container or package no later than 5 working days after the date an Executive Order approving an ACP is signed by the Executive Officer.

(7) an operational plan covering all the products identified under subsection (a)(4)(E) of this section for each compliance period that the ACP will be in effect. The operational plan shall contain all of the following:

(A) an identification of the compliance periods and dates for the responsible ACP party to report the information required by the Executive Officer in the Executive Order approving an ACP. The length of the compliance period shall be chosen by the responsible ACP party provided, however, that no compliance period shall be longer than 365 days. The responsible ACP party shall also choose the dates for reporting information such that all required VOC Content and Enforceable Sales data for all ACP products shall be reported to the Executive Officer at the same time and at the same frequency;

(B) an identification of specific enforceable sales records to be provided to the Executive Officer for enforcing the provisions of this article and the Executive Order approving an ACP. The enforceable sales records shall be provided to the Executive Officer no later than the compliance period dates specified in subsection (a)(7)(A) of this section;

(C) for a small business or a one-product business which will be relying to some extent on Surplus Trading to meet its ACP Limits, a written commitment from the responsible ACP party(ies) that they will be transfer the Surplus Reductions

to the small business or one-product business upon approval of the ACP;

(D) for each ACP product, all VOC content levels which will be applicable for the ACP product during each compliance period. The plan shall also identify the specific method(s) by which the VOC Content will be determined and the statistical accuracy and precision (repeatability and reproducibility) calculated for each specified method.

(E) the projected Enforceable Sales for each ACP product at each different VOC Content for every compliance period that the ACP will be in effect;

(F) a detailed demonstration showing the combination of specific ACP reformulations or Surplus Trading (if applicable) that is sufficient to ensure that the ACP Emissions will not exceed the ACP Limit for each compliance period that the ACP will be in effect, the approximate date within each compliance period that such reformulations or Surplus Trading are expected to occur, and the extent to which the VOC Contents of the ACP products will be reduced (i.e., by ACP reformulation). This demonstration shall use the equations specified in section 94542(a)(1) and (a)(2) for projecting the ACP Emissions and ACP Limits during each compliance period. This demonstration shall also include all VOC Content levels and projected Enforceable Sales for all ACP products to be sold in California during each compliance period;

(G) a certification that all reductions in the VOC Content of a product will be real, actual reductions that do not result from changing product names, mischaracterizing ACP product reformulations that have occurred in the past, or any other attempts to circumvent the provisions of this article;

(H) written explanations of the date-codes that will be displayed on each ACP product's container or packaging;

(I) a statement of the approximate dates by which the responsible ACP party plans to meet the applicable VOC standards for each product in the ACP;

(J) an operational plan ("reconciliation of shortfalls plan") which commits the responsible ACP party to completely reconcile any shortfalls in any and all cases, even, to the extent permitted by law, if the responsible ACP party files for bankruptcy protection. The plan for reconciliation of shortfalls shall contain all of the following:

1. a clear and convincing demonstration of how shortfalls of up to 5%, 10%, 15%, 25%, 50%, 75% and 100% of the applicable ACP Limit will be completely reconciled within 90 working days from the date the shortfall is determined;

2. a listing of the specific records and other information that will be necessary to verify that the shortfalls were reconciled as specified in this subsection (a)(7)(J);

3. a commitment to provide any record or information requested by the Executive Officer to verify that the shortfalls have been completely reconciled.

(8) a declaration, signed by a legal representative for the responsible ACP party, which states that all information and operational plans submitted with the ACP application are true and correct.

(b) (1) In accordance with the time periods specified in section 94544, the Executive Officer shall issue an Executive Order approving an ACP which meets the requirements of this article. The Executive Officer shall specify such terms and conditions as are necessary to ensure that the emissions from the ~~consumer~~ ACP products do not exceed the emissions that would have occurred if the ~~consumer~~ ACP products subject to the ACP had met the VOC standards specified in section 94509 or the VOC standards specified in section 94522, whichever are applicable. The ACP shall also include:

(A) only those ~~consumer~~ ACP products for which the Enforceable Sales are at least 75.0% of the Gross California Sales, as determined in subsection (a)(4)(E) of this section;

(B) a reconciliation of shortfalls plan meeting the requirements of this article;

(C) operational terms, conditions, and data to be reported to the Executive Officer to ensure that all requirements of this article are met.

(2) The Executive Officer shall not approve an ACP submitted by a responsible ACP party if the Executive Officer determines, upon review of the responsible ACP party's compliance history with past or current ACPs or the requirements for consumer products or the requirements for aerosol coating products (specified in sections 94507-94517 and sections 94520-94528, Title 17, California Code of Regulations), that the responsible ACP party has a recurring pattern of violations and has consistently refused to take the necessary steps to correct those violations.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94544. ACP Approval Timeframes

(a) The Executive Officer shall take appropriate action on an ACP within the following time periods:

(1) Within 30 working days of receipt of an ACP application, the Executive Officer shall inform the applicant in writing that either:

(A) the application is complete and accepted for filing, or

(B) the application is deficient, and identify the specific information required to make the application complete.

(2) Within 30 working days of receipt of additional information provided in response to a determination that an ACP application is deficient, the Executive Officer shall inform the applicant in writing that either:

(A) the additional information is sufficient to make the application complete, and the application is accepted for filing, or

(B) the application is deficient, and identify the specific information required to make the application complete.

(3) If the Executive Officer finds that an application meets the requirements of section 94543 of this article, then he or she shall issue an Executive Order in accordance with the requirements of this article. The Executive Officer shall act to approve or disapprove a complete application within 90 working days after the application is deemed complete.

(b) Before the end of each time period specified in this section, the Executive Officer and the responsible ACP party may mutually agree to a longer time period for the Executive Officer to take the appropriate action.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94545. Recordkeeping and Availability of Requested Information

(a) All information specified in the Executive Order approving an ACP shall be maintained by the responsible ACP party for a minimum of three years after such records are generated. Such records shall be clearly legible and maintained in good condition during this period.

(b) The records specified in subsection (a) of this section shall be made available to the Executive Officer or his or her authorized representative:

(1) immediately upon request, during an on-site visit to a responsible ACP party, or

(2) within five working days after receipt of a written request from the Executive Officer, or

(3) within a time period mutually agreed upon by both the Executive Office and the responsible ACP party.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94546. Violations

(a) Any person who commits a violation of this article is subject to the penalties specified in Health and Safety Code, section 42400 et seq. Failure to meet any requirement of this article or any condition of an applicable Executive Order shall constitute a single, separate violation of this article for each day until such requirement or condition is satisfied, except as otherwise provided in subsections (b) through (h) of this section.

(b) False reporting of any information contained in an ACP application, or any supporting documentation or amendments thereto, shall constitute a single, separate violation of the requirements of this article for each day that the approved ACP is in effect.

(c) Any exceedance during the applicable compliance period of the VOC content specified for an ACP product in the Executive Order approving an ACP shall constitute a single, separate violation of the requirements of this article for each ACP product which exceeds the specified VOC Content that is sold, supplied, offered for sale, or manufactured for use in California.

(d) Any of the following actions shall each constitute a single, separate violation of the requirements of this article for each day after the applicable deadline until the requirement is satisfied:

(1) Failure to report data (i.e., "missing data") or failure to report data accurately (i.e., "inaccurate data") in writing to the Executive Officer regarding the VOC content, LVP Content, Enforceable Sales, or any other information required by any deadline specified in the applicable Executive Order;

(2) False reporting of any information submitted to the Executive Officer for determining compliance with the ACP requirements;

(3) Failure to completely implement the reconciliation of shortfalls plan that is set forth in the Executive Order, within 30 working days from the date of written notification of a shortfall by the Executive Officer;

(4) Failure to completely reconcile the shortfall as specified in the Executive Order, within 90 working days from the date of written notification of a shortfall by the Executive Officer.

(e) False reporting or failure to report any of the information specified in section 94547(b)(9), or the sale or transfer of invalid Surplus Reductions, shall constitute a single, separate violation of the requirements of this article for each day during the time period for which the Surplus Reductions are claimed to be valid.

(f) Except as provided in subsection (g) of this section, any exceedance of the ACP Limit for any compliance period that the ACP is in effect shall constitute a single, separate violation of the requirements of this article for each day of the applicable compliance period. The Executive Officer shall determine whether an exceedance of the ACP Limit has occurred as follows:

(1) If the responsible ACP party has provided all required information for the applicable compliance period specified in the Executive Order approving an ACP, then the Executive Officer shall determine whether an exceedance has occurred using the Enforceable Sales records and VOC Content for each ACP product, as reported by the responsible ACP party for the applicable compliance period;

(2) If the responsible ACP party has failed to provide all the required information specified in the Executive Order for an applicable compliance period, the Executive Officer shall determine whether an exceedance of the ACP Limit has occurred as follows:

(A) for the missing data days, the Executive Officer shall calculate the total maximum historical emissions, as specified in section 94542(a)(28);

(B) for the remaining portion of the compliance period which are not missing data days, the Executive Officer shall calculate the emissions for each ACP product using the Enforceable Sales records and VOC Content that were reported for that portion of the applicable compliance period;

(C) the ACP Emissions for the entire compliance period shall be the sum of the total maximum historical emissions, determined pursuant to subsection (f)(2)(A), and the emissions determined pursuant to subsection (f)(2)(B);

(D) the Executive Officer shall calculate the ACP Limit for the entire compliance period using the ACP Standards applicable to each ACP product and the Enforceable Sales records specified in subsection (f)(2)(B). The Enforceable Sales for each ACP Product during missing data days, as specified in subsection (f)(2)(A), shall be zero (0);

(E) an exceedance of the ACP Limit has occurred when the ACP Emissions, determined pursuant to subsection (f)(2)(C), exceeds the ACP Limit, determined pursuant to subsection (f)(2)(D).

(g) If a violation specified in subsection (f) of this section occurs, the responsible ACP party may, pursuant to this paragraph, establish the number of violations as calculated according to the following equation:

$$NEV = (ACP\ Emissions - ACP\ Limit)\ x\ \frac{1\ violation}{40\ pounds}$$

where,

NEV	=	number of ACP Limit violations
ACP Emissions	=	the ACP Emissions for the compliance period
ACP Limit	=	the ACP Limit for the compliance period

The responsible ACP party may determine the number of ACP Limit violations pursuant to this paragraph only if it has provided all required information for the applicable compliance period, as specified in the Executive Order approving the ACP. By choosing this option, the responsible ACP party waives any and all legal objections to the calculation of the ACP Limit violations pursuant to this subsection (g).

(h) In assessing the amount of penalties for any violation occurring pursuant to subsections (a) - (g) of this section, the circumstances identified in Health and Safety Code section 42403(b) shall be taken into consideration.

(i) A cause of action against a responsible ACP party under this section shall be deemed to accrue on the date(s) when the records establishing a violation are received by the Executive Officer.

(j) The responsible ACP party is fully liable for compliance with the requirements of this article, even if the responsible ACP party contracts with or otherwise relies on another person to carry out some or all of the requirements of this article.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41712, 42400-42403, 42404.5, Health and Safety Code; and section 338(k), Code of Civil Procedure.

94547. Surplus Reductions and Surplus Trading

(a) The Executive Officer shall issue Executive Orders (Surplus Reduction Certificates) which establish and quantify, to the nearest pound of VOC reduced, any Surplus Reductions achieved by a responsible ACP party operating under an ACP. The Surplus Reductions can be bought from, sold to, or transferred to a responsible ACP party operating under an ACP, as provided in subsection (b) of this section. All Surplus Reductions shall be calculated by the Executive Officer at the end of each compliance period within the time specified in the approved ACP. Surplus Reduction Certificates shall not constitute instruments, securities, or any other form of property.

(b) The issuance, use, and trading of all Surplus Reductions shall be subject to the following provisions:

(1) For the purposes of this article, VOC reductions from sources of VOCs other than consumer products subject to the VOC standards specified in section 94509 or aerosol coating products subject to the VOC standards specified in section 94522 may not be used to generate Surplus Reductions;

(2) Surplus Reductions are valid only when generated by a responsible ACP party, and only while that responsible ACP party is operating under an approved ACP;

(3) Surplus Reductions are valid only after the Executive Officer has issued an Executive Order pursuant to subsection (a) of this section.

(4) Any Surplus Reductions issued by the Executive Officer may be used by the responsible ACP party who generated the surplus until the reductions expire, are traded, or until the ACP is cancelled pursuant to section 94551;

(5) Surplus Reductions cannot be applied retroactively to any compliance period prior to the compliance period in which the reductions were generated;

(6) Except as provided in subsection (b)(7)(B) of this section, only small or one-product businesses selling products under an approved ACP may purchase Surplus Reductions. An increase in the size of a small business or one-product business shall have no effect on Surplus Reductions purchased by that business prior to the date of the increase.

(7) While valid, Surplus Reductions can be used only for the following purposes:

(A) to adjust either the ACP Emissions of either the responsible ACP party who generated the reductions or the responsible ACP party to which the reductions were traded, provided the Surplus Reductions are not to be used by any responsible ACP party to further lower its ACP Emissions when its ACP Emissions are equal to or less than the ACP Limit during the applicable compliance period; or

(B) to be traded for the purpose of reconciling another responsible ACP party's shortfalls, provided such reconciliation is part of the reconciliation of shortfalls plan approved by the Executive Officer pursuant to section 94543(a)(7)(J).

(8) A valid Surplus Reduction shall be in effect starting five (5) days after the date of issuance by the Executive Officer, for a continuous period equal to the number of days in the compliance period during which the Surplus Reduction was generated. The Surplus Reduction shall then expire at the end of its effective period.

(9) At least five (5) working days prior to the effective date of transfer of Surplus Reductions, both the responsible ACP party which is selling Surplus Reductions and the responsible ACP party which is buying the Surplus Reductions shall, either together or separately, notify the Executive Officer in writing of the transfer. The notification shall include all of the following:

(A) the date the transfer is to become effective;
(B) the date the Surplus Reductions being traded are due to expire;
(C) the amount (in pounds of VOCs) of Surplus Reductions that are being transferred;
(D) the total purchase price paid by the buyer for the Surplus Reductions;
(E) the contact persons, names of the companies, street and mail addresses, and phone numbers of the responsible ACP parties involved in the trading of the Surplus Reductions;
(F) a copy of the Executive Officer-issued Surplus Reductions Certificate, signed by both the seller and buyer of the certificate, showing transfer of all or a specified portion of the Surplus Reductions. The copy shall show the amount of any remaining non-traded Surplus Reductions, if applicable, and shall show their expiration date. The copy shall indicate that both the buyer and seller of the Surplus Reductions fully understand the conditions and limitations placed upon the transfer of the Surplus Reductions and accept full responsibility for the appropriate use of such Surplus Reductions as provided in this section.

(10) Surplus Reduction Credits shall not be traded between an ACP for consumer products and an ACP for aerosol coating products.

(c) Limited-Use Surplus Reduction Credits for Early Reformulations of ACP Products

(1) For the purposes of this subsection (c), "early reformulation" means an ACP product which is reformulated to result in a reduction in the product's VOC Content, and which is sold, supplied, or offered for sale in California for the first time during the one-year (365 day) period immediately prior to the date on which the application for a proposed ACP is submitted to the Executive Officer. "Early reformulation" does not include any reformulated ACP products which are sold, supplied, or offered for sale in California more than one year prior to the date on which the ACP application is submitted to the Executive Officer.

(2) If requested in the application for a proposed ACP, the Executive Officer shall, upon approval of the ACP, issue Surplus Reduction Credits for early reformulation(s) of ACP product(s), provided that all of the following documentation has been provided by the responsible ACP party to the satisfaction of the Executive Officer:

(A) accurate documentation showing that the early reformulation(s) reduced the VOC content of the ACP product(s) to a level which is below the Pre-ACP VOC content of the product(s), or below the applicable VOC standard(s) specified in sections 94509 or 94522, whichever is the lesser of the two;

(B) accurate documentation demonstrating that the early reformulated ACP product(s) was sold in California retail outlets within the time period specified in subsection (c)(1);

(C) accurate sales records for the early reformulated ACP product(s) which meet the definition of "Enforceable Sales Records" in section 94542(a)(11), and which demonstrate that the Enforceable Sales for the ACP product(s) are at least 75.0% of the Gross California Sales for the product(s), as specified in section 94543(a)(4);

(D) accurate documentation for the early reformulated ACP product(s) which meets the requirements specified in sections 94543 (a)(3)-(4), (a)(7)(G)-(H), and (a)(8), and which identifies the specific test methods for verifying the claimed early reformulation(s) and the statistical accuracy and precision of the test methods as specified in section 94543 (a)(7)(D).

(3) Surplus Reduction Credits issued pursuant to this subsection (c) shall be calculated separately for each early reformulated ACP product by the Executive Officer according to the following equation:

$$SR = Enforceable\ Sales\ x\ \frac{([VOC\ Content]_{initial} - [VOC\ Content]_{final})}{100}$$

where,

SR = Surplus Reductions for the ACP product, expressed to the nearest pound

Enforceables Sales = the Enforceable Sales for the early reformulated ACP product, expressed to the nearest pound of ACP product ,

$VOC\ Content_{initial}$ = the Pre-ACP VOC content of the ACP product, or the applicable VOC standard specified in sections 94509 or 94522, whichever is the lesser of the two, expressed to the nearest 0.1 pounds of VOC per 100 pounds of ACP product,

$VOC\ Content_{final}$ = the VOC Content of the early reformulated ACP product after the early reformulation is achieved, expressed to the nearest 0.1 pounds of VOC per 100 pounds of ACP product.

(4) The use of Surplus Reduction Credits issued pursuant to this subsection (c) shall be subject to all of the following provisions:

(A) Surplus Reduction Credits shall be used solely to reconcile the responsible ACP party's shortfalls, if any, generated during the first compliance period occurring immediately after the issuance of the Executive Order approving an ACP, and shall not be used for any other purpose;

(B) Surplus Reduction Credits shall not be transferred to, or used by, any other responsible ACP party;

(C) Surplus Reduction Credits shall not be traded between an ACP for consumer products and an ACP for aerosol coating products;

(~~C~~D) Except as provided in this subsection (c), Surplus Reduction Credits shall be subject to all requirements applicable to Surplus Reductions and Surplus Trading, as specified in subsections 94547(a) and (b)

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94548. Reconciliation of Shortfalls

(a) At the end of each compliance period, the responsible ACP party shall make an initial calculation of any shortfalls occurring in that compliance period, as specified in the Executive Order approving the ACP. Upon receipt of this information, the Executive Officer shall determine the amount of any shortfall that has occurred during the compliance period, and shall notify the responsible ACP party of this determination.

(b) The responsible ACP party shall implement the reconciliation of shortfalls plan as specified in the Executive Order approving the ACP, within 30 working days from the date of written notification of a shortfall by the Executive Officer;

(c) All shortfalls shall be completely reconciled within 90 working days from the date of written notification of a shortfall by the Executive Officer, in accordance with the reconciliation of shortfalls plan specified in the Executive Order approving the ACP.

(d) All requirements specified in the Executive Order approving an ACP, including all applicable ACP Limits, shall remain in effect while any shortfalls are in the process of being reconciled.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94549. Notification of Modifications to an ACP by the Responsible ACP Party

(a) Modifications That Do Not Require Executive Officer Pre-Approval: The responsible ACP party shall notify the Executive Officer, in writing, of any change in an ACP product's: (1) product name, (2) product formulation, (3) product form, (4) product function, (5) applicable product category(ies), (6) VOC Content, (7) LVP Content, (8) date-codes, or (9) recommended product usage directions, no later than 15 working days from the date such a change occurs. For each modification, the notification shall fully explain the following:

(1) the nature of the modification;
(2) the extent to which the ACP product formulation, VOC Content, LVP Content, or recommended usage directions will be changed;
(3) the extent to which the ACP Emissions and ACP Limit specified in the Executive Order will be changed for the applicable compliance period; and
(4) the effective date and corresponding date-codes for the modification.

(b) Modifications That Require Executive Officer Pre-Approval: The responsible ACP party may propose modifications to the Enforceable Sales records or reconciliation of shortfalls plan specified in the Executive Order approving the ACP. Any such proposed modifications shall be fully described in writing and forwarded to the Executive Officer. The responsible ACP party shall clearly demonstrate that the proposed modifications will meet the requirements of this article. The Executive Officer shall act on the proposed modifications using the procedure set forth in section 94544. The responsible ACP party shall meet all applicable requirements of the existing ACP until such time as any proposed modification(s) is approved in writing by the Executive Officer.

(c) Other Modifications: Except as otherwise provided in subsections (a) and (b) of this section, the responsible ACP party shall notify the Executive Officer, in writing, of any information learned of by the responsible ACP party which may alter any of the information submitted pursuant to the requirements of section 94543. The responsible ACP party shall provide such notification to the Executive Officer no later than 15 working days from the date such information is known to the responsible ACP party.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94550. Modification of an ACP by the Executive Officer

(a) If the Executive Officer determines that: (1) the Enforceable Sales for an ACP product are no longer at least 75.0% of the Gross California Sales for that product, or (2) the information submitted pursuant to the approval process set forth in section 94543 is no longer valid, or (3) the ACP Emissions are exceeding the ACP Limit specified in the Executive Order approving an ACP, then the Executive Officer shall modify the ACP as necessary to ensure that the ACP meets all requirements of this article and that the ACP Emissions will not exceed the ACP Limit. The Executive Officer shall not modify the ACP without first affording the responsible ACP party an opportunity for a public hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the ACP should be modified.

(b) If any applicable VOC standards specified in sections 94509 <u>or 94522</u> are modified by the Air Resources Board in a future rulemaking, the Executive Officer shall modify the ACP Limit specified in the Executive Order approving an ACP to reflect the modified VOC standards as of their effective dates.

NOTE: Authority cited: Sections 39600, 39601, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94551. Cancellation of an ACP

(a) An ACP shall remain in effect until:

(1) the ACP reaches the expiration date specified in the Executive Order;

(2) the ACP is modified by the responsible ACP party and approved by the Executive Officer, as provided in section 94549;

(3) the ACP is modified by the Executive Officer, as provided in section 94550;

(4) the ACP includes a product for which the VOC standard specified in sections 94509 or 94522 is modified by the Air Resources Board in a future rulemaking, and the responsible ACP party informs the Executive Officer in writing that the ACP will terminate on the effective date(s) of the modified standard;

(5) the ACP is cancelled pursuant to subsection (b) of this section.

(b) The Executive Officer shall cancel an ACP if any of the following circumstances occur:

(1) the responsible ACP party demonstrates to the satisfaction of the Executive Officer that the continuation of the ACP will result in an extraordinary economic hardship;

(2) the responsible ACP party violates the requirements of the approved ACP, and the violation(s) results in a shortfall that is 20.0% or more of the applicable ACP Limit (i.e., the ACP Emissions exceed the ACP Limit by 20.0% or more);

(3) the responsible ACP party fails to meet the requirements of section 94548 (Reconciliation of Shortfalls) within the time periods specified in section 94548.

(4) the responsible ACP party has demonstrated a recurring pattern of violations and has consistently failed to take the necessary steps to correct those violations.

(c) The Executive Officer shall not cancel an ACP pursuant to subsection (b) of this section without first affording the responsible ACP party an opportunity for a public hearing in accordance with the procedures specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 1, Article 4 (commencing with section 60040), to determine if the ACP should be cancelled.

(d) The responsible ACP party for an ACP which is cancelled pursuant to this section and who does not have a valid ACP to immediately replace the cancelled ACP shall meet all of the following requirements:

(1) all remaining shortfalls in effect at the time of ACP cancellation shall be reconciled in accordance with the requirements of section 94548, and

(2) all ~~consumer~~ ACP products subject to the ACP shall be in compliance with the applicable VOC standards in sections 94509 and 94522 immediately upon the effective date of ACP cancellation.

(e) Any violations incurred pursuant to section 94546 shall not be cancelled or in any way affected by the subsequent cancellation or modification of an ACP pursuant to section 94549, 94550 or 94551.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511, 41712, 42400-42403, Health and Safety Code.

94552. Treatment of Information

The information required by sections 94543 (a)(1)-(a)(2) and 94547(b)(9) is public information which may not be claimed as confidential. All other information submitted to the Executive Officer to meet the requirements of this article shall be handled in accordance with the procedures specified in Title 17, California Code of Regulations, sections 91000-91022.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94553. Other Applicable Requirements

(a) Unless otherwise specified in the Executive Order approving an ACP, all applicable requirements specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, (~~commencing with~~ sections 94507-94517 and 94520-94528), shall remain in effect for all ~~consumer~~ ACP products subject to an ACP.

(b) All applicable requirements specified in Title 17, California Code of Regulations, Division 3, Chapter 1, Subchapter 8.5, Articles 2 and 3, (~~commencing with~~ sections 94507-94517 and 94520-94528), shall remain in effect for all ~~consumer~~ ACP products which are not subject to an ACP.

(c) The provisions of this article notwithstanding, the requirements of the South Coast Air Quality Management District Rule 1174 shall remain in effect for all charcoal lighter material products sold, supplied, offered for sale, or manufactured for use in the South Coast Air Quality Management District (as defined in section 40410 of the Health and Safety Code).

(d) The provisions of this article notwithstanding, the requirements of the Bay Area Air Quality Management District Rule 8-49 shall remain in effect for all aerosol coating products sold, supplied, offered for sale, applied, or manufactured for use in the Bay Area Air Quality Management District (as defined in section section 40200 of the Health and Safety Code).

(~~d~~e) A responsible ACP party may transfer an ACP to another responsible ACP party, provided that all of the following conditions are met:

(1) The Executive Officer shall be notified, in writing, by both responsible ACP parties participating in the transfer of the ACP and its associated Executive Order. The written notifications shall be postmarked at least five (5) working days prior to the effective date of the transfer and shall be signed and submitted separately by both responsible parties. The written notifications shall clearly identify the contact persons, business names, mail and street addresses, and phone numbers of the responsible parties involved in the transfer.

(2) The responsible ACP party to which the ACP is being transferred shall provide a written declaration stating that the transferee shall fully comply with all requirements of the Executive Order approving the ACP and this article.

NOTE: Authority cited: Sections 39600, 39601, 41511 and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, 41511 and 41712, Health and Safety Code.

94554. Federal Enforceability

For purposes of federal enforceability of this article, the Environmental Protection Agency is not subject to approval determinations made by the Executive Officer under this article. Within 180 days of a request from a responsible ACP party whose ACP has been approved by the Executive Officer, an ACP meeting the requirements of the Clean Air Act shall be submitted by the Executive Officer to the Environmental Protection Agency for inclusion in the applicable implementation plan approved or promulgated by the Environmental Protection Agency pursuant to section 110 of the Clean Air Act, 42 U.S.C., section 7410.

Prior to submitting an ACP as a revision to the applicable implementation plan, the Executive Officer shall hold a public hearing on the proposed revision. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be submitted for publication in the California Regulatory Notice Register and sent to the Environmental Protection Agency, every person who requests such notice, and to any person or group of persons whom the Executive Officer believes may be interested in the application. Within 30 days of the hearing the Executive Officer shall notify the applicant of the decision in writing as provided

in section 94543(b). The decision may approve, disapprove, or modify an ACP previously granted pursuant to section 94543.

NOTE: Authority cited: Sections 39600, 39601, 39602, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.

94555. Federal Clean Air Act Requirements

(a) Unless otherwise determined by the U.S. Environmental Protection Agency, products sold, supplied, offered for sale, or manufactured for use in California under the requirements of an ACP are not subject to the requirements of Title V of the Federal Clean Air Act (42 U.S.C. sections 7661-7661f).

(b) Nothing in this article shall be construed to modify or in any way affect any requirements of the federal Clean Air Act, including but not limited to Title V of the federal Clean Air Act, which are applicable to the construction or operation of the responsible ACP party's manufacturing facility or to any other activities of the responsible ACP party.

NOTE: Authority cited: Sections 39600, 39601, 39602, and 41712, Health and Safety Code. Reference: Sections 39002, 39600, 40000, and 41712, Health and Safety Code.