

INITIAL STATEMENT OF REASONS
FOR THE PROPOSED AMENDMENTS TO THE
CALIFORNIA AEROSOL COATING PRODUCTS,
ANTIPERSPIRANTS AND DEODORANTS,
AND CONSUMER PRODUCTS REGULATIONS,
TEST METHOD 310, AND AIRBORNE TOXIC CONTROL MEASURE FOR
PARA-DICHLOROBENZENE SOLID AIR FRESHENERS
AND TOILET/URINAL CARE PRODUCTS

Release Date: May 7, 2004

State of California AIR RESOURCES BOARD

INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING

Public Hearing to Consider

PROPOSED AMENDMENTS TO THE CALIFORNIA
AEROSOL COATING PRODUCTS, ANTIPERSPIRANTS AND DEODORANTS,
AND CONSUMER PRODUCTS REGULATIONS, TEST METHOD 310,
AND AIRBORNE TOXIC CONTROL MEASURE FOR
PARA-DICHLOROBENZENE SOLID AIR FRESHENERS
AND TOILET/URINAL CARE PRODUCTS

To be considered by the Air Resources Board on June 24, 2004, at:

Air Resources Board Auditorium 9530 Telstar Avenue El Monte, California 91731

Air Resources Board P.O. Box 2815 Sacramento, CA 95812

This report has been prepared by the staff of the California Air Resources Board. Publication does not signify that the contents reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

State of California AIR RESOURCES BOARD

INITIAL STATEMENT OF REASONS FOR THE
FOR THE PROPOSED AMENDMENTS TO THE
CALIFORNIA AEROSOL COATING PRODUCTS,
ANTIPERSPIRANTS AND DEODORANTS,
AND CONSUMER PRODUCTS REGULATIONS,
TEST METHOD 310, AND AIRBORNE TOXIC CONTROL MEASURE FOR
PARA-DICHLOROBENZENE SOLID AIR FRESHENERS
AND TOILET/URINAL CARE PRODUCTS

Prepared by:

Stationary Source Division
Air Resources Board

Reviewed by:

David Mallory P.E., Manager, Measures Development Section Carla D. Takemoto, Manager, Technical Evaluation Section Judy Yee, Manager, Implementation Section Janette M. Brooks, Chief, Air Quality Measures Branch Donald J. Ames, Assistant Chief, Stationary Source Division Peter D. Venturini, Chief, Stationary Source Division

Initial Statement of Reasons for Proposed Amendments to the California Aerosol Coating Products, Antiperspirants and Deodorants, and Consumer Products Regulations, Test Method 310, and Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresheners and Toilet/Urinal Care Products

Volume I: Executive Summary

Volume II: Technical Support Document

Air Resources Board P. O. Box 2815 Sacramento, CA 95812

ACKNOWLEDGMENTS

This report and the proposed amendments to the California Aerosol Coating Products, Antiperspirants and Deodorants, and Consumer Products Regulations, Test Method 310, and Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresheners and Toilet/Urinal Care Products were developed by the following Air Resources Board staff:

Paul Allen Tony Andreoni Chuck Beddow Nicholas Berger Michelle Byars Renee Coad Jessica Dean John DaMassa Steve Giorgi Russell Grace Marline Hicks Wendy Howard Robert Jenne, Esq. David Julian P.E. Stella Ling-Taylor Amy Livingston Reza Mahdavi, Ph.D. Cynthia Marvin Eileen McCauley Tina Najjar Olufemi Olaluwove Andrew Panson Linda Smith Trish Villegas Maryana Visina Zuzana Vona **Dodie Weiner** Barbara Weller Evan Wong

Initial Statement of Reasons for Proposed Amendments to the California Aerosol Coating Products, Antiperspirants and Deodorants, and Consumer Products Regulations, Test Method 310, and Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresheners and Toilet/Urinal Care Products

TABLE OF CONTENTS

Conte	<u>ents</u>		<u>Page</u>
Volui	me I: A. B. C. D. E. F G. H. I.	Introduction History and Background Summary of Proposed Amendments Regulatory Development Process and Evaluation of Alternatives Compliance With the Proposed 2004 Amendments Economic Impacts Environmental Impacts Future Plans Recommendation	1 1 5 15 17 21 24 25 26
Volur I.	Intro A.	TECHNICAL SUPPORT DOCUMENT duction Overview Enabling Legislation Background	I-1 I-1 I-1 I-3
11.	А. В.	elopment of Proposed Amendments Public Process for Developing Proposed Limits Staff Evaluation of Emission Reduction Opportunities Alternatives Considered	II-8 II-8 II-9 II-10
III.	Tech A. B.	nnical Basis for the Proposed Amendments Technologically Feasible Commercially Feasible	III-12 III-12 III-13
IV.	Emis A. B. C.	Ambient Air Quality and the Need for Emissions Reductions Why Regulate Consumer Products? Estimated Emissions from Categories Proposed to be Regulated in 2004 Consumer Products Regulation Amendments	IV-15 IV-15 IV-27

TABLE OF CONTENTS (continued)

Cont	<u>Contents</u>	
V.	Proposed Amendments to the Aerosol Coating Products, Antiperspirants and Deodorants, and Consumer Products Regulations, and Test Method 310 A. Definitions (Section 94508 and Section 94501) B. Standards for Consumer Products (Section 94509) C. Exemptions (Section 94510) D. Administrative Requirements (Section 94512) E. Reporting Requirements (Section 94513) F. Amendments to Test Method 310, and Test Method Sections 94506, 94515, and 94526	V-39 V-40 V-47 V-52 V-55 V-56
VI.	Description of Product Categories A. Adhesive Removers B. Anti-Static Product C. Contact Adhesive D. Electronic and Electrical Cleaner E. Fabric Refresher F. Footware or Leather Care Product G. Graffiti Remover H. Hair Styling Product I. Shaving Gel J. Toilet/Urinal Care Product and Solid/Gel Room Air Freshener K. Wood Cleaner	VI-58 VI-71 VI-76 VI-85 VI-96 VI-100 VI-113 VI-119 VI-127 VI-139
VII.	Health Risk and Needs Assessment for the Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresheners and Toilet/Urinal Care Products A. Introduction B. Background C. Purpose D. Regulatory Authority E. Regulatory Activities F. Outreach Efforts G. Sources, Emissions, and Chemical and Physical Characteristics of PDCB H. Exposure to PDCB I. Stability, Persistence, Transformation Products, and Dispersion Potential J. Potential Health Effects of PDCB K. Risk Analysis L. Availability and Technological Feasibility of the ATCM M. Cost of the ATCM	VII-143 VII-145 VII-146 VII-147 VII-148 VII-149 VII-152 VII-159 VII-160 VII-165 VII-165

TABLE OF CONTENTS (continued)

Con	<u>Contents</u>		<u>Page</u>
VII.	•	tinued)	
	N. O.	Environmental Impacts Actions Taken or Being Considered by Other States	VII-166
	O.	Actions Taken or Being Considered by Other States, Agencies, or Municipalities	VII-166
	P.	Rationale for Reducing Exposure to PDCB	VII-167
VIII.	Economic Impacts		VIII-174
	A.	Introduction	VIII-174
	B.	Economic Impacts Analysis on California Businesses as Required by the California Administrative	
	C.	Procedure Act (APA) Analysis of Potential Impacts to California State	VIII-176
		or Local Agencies	VIII-185
	D.	Analysis of the Cost-Effectiveness (C.E.) of the	\ /!!! 400
	_	Proposed Limits	VIII-186
	E. F.	Analysis of the Impacts to Raw Materials Cost Analysis of the Combined Impacts on Per-Unit Cost	VIII-194
	١.	from Recurring and Nonrecurring Costs	VIII-198
	G.	Other Possible Economic Impacts	VIII-203
	H.	Mitigation of Potential Impacts Through Additional	
		Regulatory Flexibility	VIII-204
IX.	Envi	ronmental Impacts	IX-207
	A.	Summary of Environmental Impacts	IX-207
	B.	Legal Requirements Applicable to the Analysis	IX-208
	C.	Alternative Means of Compliance	IX-209
	D. E.	Air Quality Environmental Impacts	IX-210 IX-224
	F.	Potential Toxic Air Contaminants Impacts Risk Assessment for Reduced Exposure to Ozone and TACs	IX-224 IX-242
	G.	Other Potential Environmental Impacts	IX-242
	О. Н.	Potential Flammability of Products that Contain VOCs	IX-246
	i.	State Implementation Plan (SIP) Impact	IX-247
	J.	Environmental Justice	IX-248
Χ.	Future Activities		X-254
	A.	2003 Consumer and Commercial Products Survey	X-254
	В.	2005 and 2006 Consumer Products Regulatory Amendments	X-254
	C.	2005 Consumer and Commercial Products Survey	X-255
	D.	2008 Consumer Products Regulatory Amendments	X-255
	E.	Further Reductions from Consumer Products	X-255

APPENDIX APPENDIX E	Proposed Amendments to the Consumer Products Regulation, Antiperspirants and Deodorants Regulation, Aerosol Coatings Products Regulation, and Test Method 310 Summary of Regulations Adopted and Dates of Regulatory Amendments	
APPENDIX (APPENDIX (APPENDIX E	C: Meeting Notices (Working Group and Workshop) C: 2001 Consumer and Commercial Products Survey	numents
Table Title	LIST OF TABLES	Page
Table Tille	Volume I: Executive Summary	<u>r age</u>
Chapter I: Table 1: Table 2: Table 3: Table 4:	Introduction Product Categories Covered by Proposed 2004 Amendments Proposed VOC Limits and Reductions Achieved Chronology of Public Meetings and Workshops Summary of Complying Products	6 8 15 20
	Volume II: Technical Support Document	
<i>Chapter I:</i> Table I-1:	Introduction List of Current Airborne Toxic Control Measures	I-3
Chapter II: Table II-1	Development of Proposed Amendments Chronology of Workgroup Meetings and Public Workshop	II-9
Chapter IV: Table IV-1 Table IV-2	Emissions Ambient Air Quality Standards for Ozone and PM ₁₀ VOC Emissions by Product Category	IV-20 IV-33
Chapter V:	Proposed Amendments to the Aerosol Coating Products, Antiperspirants and Deodorants, and Consumer Products Regulations, and Test Method 310	
Table V-1: Table V-2:	New Definitions Proposed for Addition Existing Definitions Proposed for Modification	V-40 V-41
Table V-3: Table V-4:	New Definitions Proposed that Relate to New Product Categories Proposed VOC Limit, Product Forms, and Effective Dates	V-41 V-48
Chapter VI:	Description of Product Categories	V/I 60
Table VI-1:	Adhesive Removers Adhesive Removers	VI-60 VI-60
Table VI-1a:	Adhesive Removers Adhesive Remover Proposal	VI-60 VI-65
Table VI-2.	Anti-Static Product	VI-03 VI-72
Table VI-3.	Anti-Static Product Anti-Static Product Proposal	VI-72 VI-74
	the contract of the second	

LIST OF TABLES (continued)

	<u>Page</u>
Contact Adhesive Contact Adhesive Proposal Electronic and Electrical Cleaner Electronic and Electrical Cleaner Proposal Fabric Refresher Fabric Refresher Proposal Footware or Leather Care Product Footware or Leather Care Product Proposal Graffiti Remover Graffiti Remover Proposal Hair Styling Product Hair Styling Product Proposal Shaving Gel Shaving Gel Proposal Toilet/Urinal Care Product Proposal	VI-79 VI-82 VI-87 VI-90 VI-96 VI-100 VI-104 VI-110 VI-111 VI-114 VI-116 VI-120 VI-129 VI-129 VI-134
Wood Cleaner	VI-140
Wood Cleaner Proposal	VI-141
Health Risk and Needs Assessment for the Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresher and Toilet/Urinal Care Products	ners
Facilities that Manufacture or Process PDCB Chemical Information for PDCB Physical Properties of PDCB Drinking Water Standards in Select Areas Emission Source Parameters Potential Cancer Health Risks Due to PDCB Emissions from Processes as Part of Wastewater	VII-150 VII-151 VII-152 VII-154 VII-162
: Economic Impacts Industries with Businesses Potentially Affected by the Proposed Limits	VIII-178
Annualized Non-Recurring and Annual Recurring Costs	VIII-181
	VIII-182
California Employment and Payroll in Affected Industries Estimated Total Non-Recurring Fixed Cost	VIII-184
to Comply with Proposed Limits	VIII-192
Comparison of Cost-Effectiveness for ARB Consumer Produ Regulations/Measures	ct VIII-193
	Contact Adhesive Proposal Electronic and Electrical Cleaner Electronic and Electrical Cleaner Proposal Fabric Refresher Fabric Refresher Proposal Footware or Leather Care Product Footware or Leather Care Product Proposal Graffiti Remover Graffiti Remover Proposal Hair Styling Product Hair Styling Product Proposal Shaving Gel Shaving Gel Proposal Toilet/Urinal Care Product Proposal Wood Cleaner Wood Cleaner Proposal Health Risk and Needs Assessment for the Airborne Toxic Control Measure for Para-dichlorobenzene Solid Air Fresher and Toilet/Urinal Care Products Facilities that Manufacture or Process PDCB Chemical Information for PDCB Physical Properties of PDCB Drinking Water Standards in Select Areas Emission Source Parameters Potential Cancer Health Risks Due to PDCB Emissions from Processes as Part of Wastewater Operations **Economic Impacts** Industries with Businesses Potentially Affected by the Proposed Limits Estimated Total Impacts to Businesses from Both Annualized Non-Recurring and Annual Recurring Costs Changes in Return on Owner's Equity (ROEs) for Typical Businesses in Affected Industries California Employment and Payroll in Affected Industries Estimated Total Non-Recurring Fixed Cost to Comply with Proposed Limits Comparison of Cost-Effectiveness for ARB Consumer Produ

LIST OF TABLES (continued)

Table Title		<u>Page</u>
Table VIII-7:	Estimated Impacts to Raw Materials Cost (\$/ unit of product) for Proposed Limits	VIII-196
Table VIII-8:		
Table VIII-9:	Product Regulations (unadjusted dollars) Estimated Per-Unit Cost Increases from Both	VIII-198
	Annualized Non-Recurring and Annual Recurring Costs	VIII-202
•	Environmental Impacts	
Table IX-1: Table IX-2:	VOC Emissions and Reductions by Product Category Pollutant-Specific Health Effects for Select VOC TACs	IX-211
Table IX 2.	of Concern	IX-225
Table IX-3:	Pollutant-Specific Health Effects Values Used for	IV 000
Table IX-4:	Determining Potential Health Impacts 2001 Statewide Emissions of Perc, MeCl, and TCE from	IX-226
	Categories of Consumer Products Scheduled for Regulation	IX-227
Table IX-5:	Physical Properties of Perchloroethylene (Perc)	IX-228
Table IX-6:	Physical Properties of Methylene Chloride (Dichloromethane)	IX-230
Table IX-7:	Physical Properties of Trichloroethylene (TCE)	IX-232
Table IX-8:	Summary of VOC and TAC Reductions in Categories Proposed for Regulation	IX-244
	LIST OF FIGURES	
Figure Title		<u>Page</u>
Figure IV-1:	Population-Weighted Exposure to Ozone Concentrations Above the State Ambient Air Quality Standard	IV-17
Figure IV-2:	California Exceedences of State Ambient Air Quality	10 17
- IV 0:	Standards During 2000	IV-22
Figure IV-3:	Area Designations for State Ambient Air Quality Standard for Ozone	IV-23
Figure IV-4:	Area Designations for State Ambient Air Quality Standard	
Figure IV-5	for PM ₁₀ Area Designations for National Ambient Air Quality Standard	IV-24
_	for Ozone	IV-25
Figure IV-6:	Area Designations for National Ambient Air Quality Standard for PM ₁₀	IV-26
Figure VII-1:	Blood Concentrations	IV-157
•	Comparison of Relative Pollutant Concentrations Found Using Sacramento, Fresno, and West Los Angeles Meteorological Data	IV-163