State of California

AIR RESOURCES BOARD

Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Responses

PUBLIC HEARING TO CONSIDER ADOPTION OF PROPOSED AMENDMENTS TO THE CALIFORNIA CONSUMER PRODUCTS REGULATIONS AND METHOD 310 AND ADOPTION OF AIRBORNE TOXIC CONTROL MEASURE FOR PARA-DICHLOROBENZENE

Scheduled for Consideration: June 24, 2004

Agenda Item No. 04-6-5

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I.

INTRODUCTION

On June 24, 2004, the Air Resources Board (the "Board" or "ARB") conducted a public hearing to consider amendments to the California Consumer Products Regulations and Test Method 310, and adoption of an Airborne Toxic Control Measure (ATCM) for Para-dichlorobenzene [sections 94501, 94506, 94507-94510, 94512, 94513, 94515, and 94526, title 17, California Code of Regulations (CCR) and Test Method 310 (incorporated by reference in sections 94506, 94515, and 94526, title 17, CCR)]. An Initial Statement of Reasons for Proposed Rulemaking (ISOR) was prepared and made available to the public on May 7, 2004. The ISOR is incorporated by reference herein. This Final Statement of Reasons for Rulemaking (FSOR) updates the ISOR by identifying and explaining the modifications that were made to the original proposal. The FSOR also summarizes the written and oral comments received during the rulemaking process, and contains the ARB's responses to those comments.

At the hearing, the Board approved Resolution 04-18, which initiated steps toward final adoption of the proposed amendments and the ATCM for para-dichlorobenzene. The amendments revised the Board's Consumer Products Regulations, updated Test Method 310, and revised or clarified other requirements. The ATCM prohibits the use of para-dichlorobenzene in solid air fresheners and toilet/urinal care products.

The approved amendments and ATCM included modifications to the originally proposed language. All of the modifications to the original proposal are described in Section II of this FSOR entitled "Modifications Made to the Original Proposal." In accordance with Government Code section 11346.8(c), Resolution 04-18 directed the Executive Officer to adopt the modified regulation and ATCM after making the modified regulatory language available for public comment, and to make such additional modifications as may be appropriate in light of the comments received.

A "Notice of Public Availability of Modified Text and Availability of Additional Documents" together with a copy of the full text of the modified regulation, with the modifications clearly indicated, and a copy of a document entitled "Supplemental Analysis Regarding the Air Resources Board's Proposed Airborne Toxic Control Measure for *Para*-dichlorobenzene," dated February 10, 2005, were mailed on February 17, 2005 (Supplemental Analysis), to each of the individuals described in subsections (a)(1) through (a)(4) of section 44, title 1, CCR. By this action the modified consumer products regulations and ATCM and Supplemental Analysis were made available to the public for a 15-day comment period from February 17, 2005 to March 4, 2005, pursuant to Government Code section 11346.8. The Executive Officer then determined that no additional changes should be made to the regulations, and subsequently issued Executive

Order R-05-001, by which the modified consumer products regulations and ATCM were adopted.

As defined in Government Code section 11345.5(a)(6), the Board has determined that this regulatory action will not create costs or savings to any State agency, nor affect federal funding to the State. The Board has also determined that this regulatory action will not create costs or impose a mandate upon any local agency or school district, whether or not it is reimbursable by the State pursuant to Part 7 (commencing with section 17500), Division 4, title 2 of the Government Code; or affect other non-discretionary savings to state or local agencies. In preparing the regulatory proposal, the ARB staff considered the potential economic impacts on California business enterprises and individuals. A detailed discussion of these impacts is included in the ISOR. The adopted regulations and ATCM are considered "major regulations" within the meaning of Health and Safety Code section 57005 (enacted by Senate Bill 1082: Stats.1993, ch. 418), because the regulations will have an economic impact on the State's business enterprises in an amount approaching ten million dollars per year. During the 45-day and 15-day comment periods, no alternatives or combination of alternatives were submitted to the ARB which would be equally effective as the proposed regulations (i.e., no alternatives, or combination or alternatives, were submitted which would achieve at least the equivalent level of environmental protection within the same time frame as the proposed regulations.)

The Board has determined that no reasonable alternative considered by the agency or that has otherwise been identified and brought to the attention of the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or which would be as effective and less burdensome to affected private persons or business, than the action taken by the ARB.

II.

CORRECTIONS TO REFERENCE DATES

There are five corrections to the reference dates in the ISOR. The corrections concern the difference between the dates of the reference copies, submitted with the ISOR, and the dates cited in the ISOR reference lists. The reasons for the differences are as follows, with the corrections in **bold** type:

CHAPTER VI, PAGE VI-113 (G. Graffiti Remover)

Hydrosol, Inc. Comments to Initial Staff Proposals for VOC Standards for Changes to the Consumer Products Regulation. **January 7, 2004** (Hydrosol, 2004)

(The citation in the ISOR should have been January 7, 2004, not February 7, 2004.)

CHAPTER VI, PAGE VI-126 (I. Shaving Gel)

EP Spray System, Inc. Spray and Dispensing Systems With Compressed Air. http://www.epspray.com/e/presentation.htm. **September 11, 2003**. (EP, internet)

(The reference copy is from a webpage downloaded and printed on September 11, 2003. The ISOR citation was from a better copy of the same webpage downloaded and printed in February 2004.)

CHAPTER VI, PAGE VI-126 (I. Shaving Gel)

Exxel Container. **Telephone conversation** with ARB Staff, **February 9, 2004**. (Exxel)

(The ISOR citation was for the original telephone communication on October 16, 2003. The reference copy is from a subsequent telephone communication, for confirmation, on February 9, 2004.)

CHAPTER VII, PAGE VII-168

Chemical Market Reporter, 2004. Chemical Profile for P-dichlorobenzene. **April 5, 2004**. http://www.chemcialmarketreporter.com

(The citation in the ISOR should have been April 5, 2004, not April 26, 2004.)

CHAPTER IX, PAGE IX-251

Office of Environmental Health Hazard Assessment (OEHHA). State of California, Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Safe Drinking Water and Toxic Enforcement Act of 1986, Chemical Known To The State To Cause Cancer And Reproductive Toxicity. **April 16, 2004.** (OEHHA, 2004)

(The citation in the ISOR should have been April 16, 2004, not August, 1999.)

III.

MODIFICATIONS MADE TO THE ORIGINAL PROPOSAL

Various modifications to the original proposal were made in order to address comments received during the 45-day public comment period, and to clarify the regulatory language. These modifications are described below.

A. Section 94508. Definitions:

Section 94508(a)(52) The definition of "Fabric Refresher" was modified to clarify the types of products subject to the VOC standard.

Section 94508(a)(88) A modification was made to exclude certain "Lawn and Garden Insecticide" products from the "most restrictive limit" provision.

Section 94508(a)(132) The definition of "Spot Remover," was modified to clarify the types of products subject to the VOC standard.

B. Section 94509. Standards for Consumer Products:

Section 94509(c)(1)(D) A modification was made to clarify how multi-unit packages must display date-codes in order to qualify for the "sell through" provision. The modification provides additional flexibility for manufacturers by specifying that multi-unit packages may alternatively display the "date of assembly" of the package, in lieu of clearly displaying the individual manufacturing date or date-code of each unit within the package.

Section 94509(c)(2)(D) A modification was made to the sell-through notification provision to clarify that the provision applies only to products subject to a VOC standard with an effective date on or after December 31, 2004.

Section 94509(m)&(n) For the prohibition of chlorinated compounds (i.e. methylene chloride, perchoroethylene, and trichloroethylene) in seven product categories, the effective date was changed to December 31, 2005, one year earlier, for four of these product categories. The affected categories are contact adhesives, electronic cleaners, footwear or leather care products, and general purpose degreasers. The three-year sell-through period for these four categories was accordingly modified to end on December 31, 2008, also one year earlier. Section 94509(m) specifies the modified requirements for these four categories. No change in the effective date or sell-through period was made for the remaining three categories (adhesive removers, electrical cleaners, and graffiti removers).

The requirements for these three categories are now addressed separately in section 94509(n).

Section 94509(o) The effective date of the prohibition on the use of para-dichlorobenzene in solid air fresheners and toilet/urinal care products was changed from December 31, 2006 to December 31, 2005. The sell-through period for these products was also modified to end on December 31, 2006, one year earlier.

C. Section 94510. Exemptions

Section 94510(g) A modification was made to the exemption that previously exempted solid air fresheners containing at least 98% para-dichlorobenzene from the VOC standards in section 94509(a). The modification clarified that the exemption is allowed to continue through December 30, 2006, with the exemption expiring and the para-dichlorbenzene prohibition becoming effective on December 31, 2006 in accordance with section 94509(o).

D. Section 94512. Administrative Requirements

Section 94512(a)(1) A modification was made to exclude insecticide foggers from the most restrictive limit provision.

Sections 94512(a)(1) and (a)(2) Modifications were made to allow Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registered insecticide products an extra year to comply with the change to the most restrictive limit provision.

Section 94512(a)(3) A modification was made to the most restrictive limit provision to clarify the rules that apply when a product falls into two or more category definitions.

Section 94512(b)(5) A modification was made to the product dating requirements to clarify how they apply to products sold in multi-unit packages. This modification should provide manufacturers with additional flexibility.

E. Miscellaneous Several minor modifications, such as renumbering subsections and correcting dates, were also made throughout the regulatory language.

F. Additional Documents Added to the Rulemaking Record

In the interest of completeness, staff added to the rulemaking record and invited comments on the additional documents identified in the 15-day

Notice, Enclosure 3. The most significant additional document is an analysis generated by ARB staff entitled:

> Supplemental Analysis Regarding the Air Resources Board's Proposed Airborne Toxic Control Measure For *Para*-dichlorobenzene, February 10, 2005.

No modifications were made as a result of including these additional documents.

IV.

SUMMARY OF COMMENTS AND AGENCY RESPONSES

The Board received numerous written and oral comments during the 45-day and 15-day comment periods for this regulatory action. A list of commenters is set forth below with the date and form of all comments that were timely filed. Following the list is a summary of each objection or recommendation made regarding the proposal with an explanation of how the proposed action has been changed to accommodate the objection or recommendation, or the reasons for making no change.

Comments Received During the 45-day Public Comment Period

Abbreviation	*Commenter*
ACC	Courtney M. Price Vice President, CHEMSTAR American Chemistry Council written testimony: June 21, 2004
AIR	John Gibbs Chair Air Issues and Regulations Committee written testimony: June 4, 2004
ASC-1	Mark Collatz Director, Government Relations The Adhesive and Sealant Council, Inc. written testimony: June 22, 2004
ASPA-1	William Lafield Operating Committee Chairman Automotive Specialty Products Alliance written testimony: June 23, 2004
CCA	Nidia Bautista Coalition for Clean Air oral testimony: June 24, 2004

CCA, et al.	Todd Campbell, Policy Director Coalition for Clean Air Gail Ruderman Feuer. Senior Attorney Natural Resources Defense Council Bonnie Holmes-Gen, Assistant Vice President, Government Relations American Lung Association of California Scott Kuhn, Southern California Legal Director Communities for a Better Environment Dr. Joseph K. Lyou, Executive Director California Environmental Rights Alliance Yuki Kidokoro, Acting Executive Director Communities for a Better Environment Kathryn Phillips, Senior Policy Advisor Center for Energy Efficiency and Renewable Technologies V. John White, Special Representative Sierra Club written testimony: June 18, 2004
CPA-1	Jack Murray Executive Director Chlorobenzene Producers Association Represented by: R. Bruce Dickson and Peter W. Weiner Paul, Hastings, Janofsky & Walker LLP written testimony: June 15, 2004
CPA-2	R. Bruce Dickson Paul, Hastings, Janofsky & Walker LLP (Representing Chlorobenzene Producers Association) oral testimony: June 24, 2004
CPA-3	Byron E. Butterworth, Ph.D. Butterworth Consulting (Representing Chlorobenzene Producers Association) written testimony: June 24, 2004
CPA-4	Byron E. Butterworth, Ph.D Butterworth Consulting (Representing Chlorobenzene Producers Association) oral testimony: June 24, 2004

CSDLAC-1	Paul C. Martyn Head, Industrial Waste Section County Sanitation Districts of Los Angeles County written testimony: May 18, 2004
CSPA-1	D. Douglas Fratz Vice President, Scientific & Technical Affairs Joseph T. Yost Director, State Affairs Consumer Specialty Products Association written testimony: June 22, 2004
CSPA-2	Joseph T. Yost Director, State Affairs Consumer Specialty Products Association oral testimony: June 24, 2004
CTFA-1	Thomas J. Donegan Vice President - Legal & General Counsel Cosmetic, Toiletry, and Fragrance Association written testimony: June 23, 2004
CTFA-2	Thomas J. Donegan Vice President - Legal & General Counsel Cosmetic, Toiletry, and Fragrance Association oral testimony: June 24, 2004
DAP	Matt Stewart Manger, Regulatory and Environmental Affairs DAP Inc. written testimony: June 23, 2004
Gillette	David T. Callaghan Assistant Director of Product Development The Gillette Company written testimony: June 22, 2004
Hydrosol	Edward S. Piszynski Vice President, Laboratory Services Hydrosol Incorporated written testimony: June 9, 2004
IRTA	Katy Wolf Executive Director Institute for Research and Technical Assistance oral testimony: June 24, 2004

Los Angeles-1	Rita L. Robinson Director, Bureau of Sanitation Department of Public Works City of Los Angeles written testimony: June 21, 2004
Los Angeles-2	Warren Huang, P.E. Senior Sanitary Engineer, Assistant Division Manager Bureau of Sanitation Department of Public Works City of Los Angeles oral testimony: June 24, 2004
Ludwig	Robert Ludwig written testimony: June 3, 2004
LVMWD	John R. Mundy General Manager Las Virgenes Municipal Water District written testimony: May 27, 2004
MagicAmer	Richard Pearl Vice President, Research and Development Magic American Products oral testimony: June 24, 2004
MGK	William L. Chase II Director, Registration and Regulatory Affairs McLaughlin Gormley King Company written testimony: June 7, 2004
NPCA-1	Heidi K. McAuliffe Counsel, Government Affairs National Paint and Coatings Association written testimony: June 23, 2004
NRDC	Melissa Lin Perrella Project Attorney National Resources Defense Council oral testimony: June 24, 2004
OCSD	Mahin Talebi Source Control Manager Orange County Sanitation District written testimony: June 2, 2004

OEHHA-1	George V. Alexeeff, Ph.D., D.A.B.T. Deputy Director for Scientific Affairs Office of Environmental Health Hazard Assessment written testimony: June 22, 2004
OVSD	John K. Correa General Manager Ojai Valley Sanitary District written testimony: May 27, 2004
Petersen	Joanne Hiratsuka Petersen written testimony: May 18, 2004
Ponos	Dennis Ponos written testimony: May 14, 2004
Reckitt	Jim Mattesich Livingston & Mattesich (Representing Reckitt Benckiser) oral testimony: June 24, 2004
SCAP	Raymond C. Miller Executive Director Southern California Alliance of Publicly Owned Treatment Works written testimony: May 20, 2004
SCJ	F. H. Brewer Director, Worldwide Government Relations S. C. Johnson & Son, Inc. written testimony: June 23, 2004
Scotts	Chris J. Wible Manager, Regulatory Issues The Scotts Company written testimony: June 3, 2004
SCP2C	Greg Beach Chair Southern California Pollution Prevention Committee written testimony: May 24, 2004

Sherwin	Doug Raymond Director of Regulatory Affairs Sherwin-Williams oral testimony: June 24, 2004
Tri-TAC-1	Sharon N. Green Chair Tri-TAC written testimony: June 1, 2004
Tri-TAC-2	Ann Terese Heil, P.E. Senior Engineer, Industrial Waste Section County Sanitation Districts of Los Angeles County (Representing Tri-TAC) oral testimony: June 24, 2004
US EPA	Alexis Strauss Director, Water Division Deborah Jordan Director, Air Division Jeff Scott Director, Waste Management Division United States Environmental Protection Agency, Region IX written testimony: June 17, 2004

Comments Received During the15-day Public Comment Period

Abbreviation	*Commenter*
3M	Catherine F. Jacobsen, Ph.D. DABT Toxicology Specialist 3M Corporate Toxicology and Regulatory Services written testimony: March 4, 2005
ASC-2	Mark Collatz Director, Government Relations The Adhesive and Sealant Council, Inc. written testimony: March 4, 2005
ASPA-2	William Lafield Operating Committee Chairman Automotive Specialty Products Alliance written testimony: March 4, 2005
Bruskotter	Karl Bruskotter written testimony: February 22, 2005
CSDLAC-2	Paul C. Martyn Head, Industrial Waste Section County Sanitation Districts of Los Angeles County written testimony: March 3, 2005
CSPA-3	D. Douglas Fratz Vice President, Scientific & Technical Affairs Joseph T. Yost Director, State Affairs Consumer Specialty Products Association written testimony: March 4, 2005
CTFA-3	Thomas J. Donegan Vice President - Legal & General Counsel Cosmetic, Toiletry, and Fragrance Association written testimony: March 4, 2005
K&H	Herbert Estreicher Keller and Heckman LLP written testimony: March 4, 2005

NAA	Douglas J. Raymond (representing NAA) National Aerosol Association written testimony: March 4, 2005
NPCA-2	Heidi K. McAuliffe Counsel, Government Affairs National Paint and Coatings Association written testimony: March 4, 2005
OEHHA-2	George V. Alexeeff, Ph.D. Deputy Director for Scientific Affairs Office of Environmental Health Hazard Assessment written testimony: March 4, 2005

A. 45-DAY COMMENTS

1. ADMINISTRATIVE REQUIREMENTS AND GENERAL COMMENTS

Most Restrictive Limit

1. **Comment** : Section 94512(a) - Most Restrictive Limit -- CSPA remains very concerned about the revisions proposed to this key regulatory provision. Specifically, the proposed revisions to Section 94512(a) represent a very substantive change that would impact a multitude of products in dozens of categories already regulated by the ARB. Under the current regulation, the categorization of a product is determined by statements appearing on the principal display panel. As proposed, the scope of the Most Restrictive Limit provision would extend beyond the principal display panel and apply to any claims on the product label. At a minimum, this will require manufacturers of all consumer products to conduct a burdensome review of all labels and remove any incidental uses or claims that could trigger classification in another regulated category with a lower VOC limit. In addition, the proposed Most Restrictive Limit provision could have the unintended effect of instantly taking some products out of compliance and making them subject to potential enforcement actions. This proposal could also result in a retroactive change to the applicable VOC limits for many products without evidence of commercial and technological feasibility and necessity, and without adequate data as unambiguously required by state law. In effect, the ARB proposes to "move the goal posts" without meeting its burden of proof that this regulatory provision meets these key statutory requirements.

The overwhelming majority of product labels provide a clear statement of identity on the principal display panel that allows both consumers and the ARB to determine the products' primary use and/or function. California's current regulations focus on statements presented on the principal display panel, and correspond closely to requirements in federal law. Specifically, federal regulations promulgated pursuant to the Fair Packaging and Labeling Act requires that the "principal display panel of a consumer commodity shall bear a specification of the identity of the commodity." This "statement of identity" must explain a product's primary feature so that it can be understood by the consumer. The Federal Trade Commission's (FTC's) regulations define the term "principal display panel" as "...that part of a label that is most likely to be displayed, presented, shown, or examined under normal and customary conditions of display for retail sale." FTC's regulations further require that the specifications on the statement of identity include:

- Name now or hereafter specified in or required by any applicable Federal law or regulation; or in the absence thereof,

- Common or usual name of the commodity, or in the absence thereof,

- Generic name or in other appropriately descriptive terms such as a specification which includes a statement of function.

In addition, the FTC regulations require that the statement of identity must not be false, misleading, or deceptive in any respect. Consequently, the overwhelming majority of manufacturers market products that are labeled in a way that unambiguously communicates the primary use and/or function of the product, ARB staff should have no difficulty categorizing the vast majority of consumer products and has not demonstrated that this is a widespread or significant problem.

CSPA is particularly concerned that the proposed revision could have an extremely detrimental effect on registered pesticide products. Specifically, many pesticides are registered by both the U.S. EPA and the California Department of Pesticide Registration as "multi-purpose" products, and many insecticide ingredients are, by their nature, effective against a broad range of insect pests. Virtually all Insecticide Foggers have claims covering crawling bugs, fleas and ticks. Most indoor insecticide products have incidental outdoor uses, such as the use of ant sprays around exterior doors. Most Lawn and Garden Insecticides have claims for crawling bugs, which soon will be subject to a lower VOC limit for the aerosol form. The application of the revised Most Restrictive Limit provision on many insecticide products would be to impose infeasible VOC limits or require label revisions that remove important information for consumers regarding how and where the product is effective.

If ARB decides to proceed with the proposed revisions to this provision, it is essential that some adjustments be made to several of the definitions of some product categories in Section 94508 (as described earlier in these comments) and that two additional categories of products be added to the list of categories (which now includes only General Purpose Cleaners) to which this provision does not apply to:

- Insecticides; and
- General Purpose Degreasers.

Insecticide label changes are very expensive and time-consuming, even in those cases where such revisions are feasible. General Purpose Degreasers face the same problems as General Purpose Cleaners in relation to application of this provision.

If these revisions are made, CSPA members are willing to undergo the burdensome task of label review to seek to comply with this revised provision. This review may uncover additional unforeseen and unintended problems, however, and we hope that ARB will be willing to address such problems as they are identified. (CSPA-1)

Agency Response: As explained in the ISOR on page V-52, section 94512(a) was changed to eliminate situations where products circumvent the most restrictive limit provision by placing representations on other parts of the container or labels that indicated the product was suitable for use as products subject to lower VOC limits. This change will ensure that a level playing field is maintained and that the companies that have reformulated to meet lower VOC limits are not disadvantaged in the market place. Staff believes that this change is necessary because, contrary to the opinion expressed by the commenter, staff has encountered a number of situations where labels were apparently designed to circumvent regulatory requirements (see page V-52 of the ISOR).

The effective date of this change is January 1, 2007, so that manufacturers have ample lead time to review their current labels and take appropriate action to insure that their products comply with the applicable standard. We do not believe that such a label review will be an unreasonable burden, because it is our understanding that it is normal business practice to review labels periodically. For the limited number of products that this change will affect, manufacturers also have the option to change their label claims or leave their labels as they are currently written so long as the product complies with the applicable limits. Because the manufacturer has the option of simply relabeling products instead of reformulating them, the commenter is incorrect in suggesting that the proposed change will subject products to new limits without demonstrating that the limits are commercially and technologically feasible.

The most restrictive limit clause has been part of the consumer products regulation since 1990, so most manufacturers should be aware that the claims they make on their product labels determine which category and VOC limit the product will be subject to. This change to the most restrictive limit requirement is consistent with the aerosol coatings regulation and is consistent with the original consumer product regulation language which was changed prior to the Board hearing for the Phase 2 amendments on January 9, 1992.

As requested by the commenter, modifications were made during the 15-day comment period to clarify how the most restrictive limit applies to insecticides. The modifications exclude from the most restrictive limit provision insecticide foggers (see section 94512(a)(1)) and lawn and garden insecticides (see section 94508(a)(88)). This modification is appropriate because these products are specifically designed to eliminate a broad spectrum of insects. Another modification was made to section 94512(a)(1) and (a)(2) to allow Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registered

insecticide products an extra year to comply with the change to the most restrictive limit provision. This should address the commenter's concern that insecticide label changes are difficult and take more time than other label changes.

After review of the General Purpose Degreaser definition, staff believes modifications to exempt these products from the Most Restrictive Limit provision could result in circumvention of the regulation's intent. This is because excluding General Purpose Degreaser from the Most Restrictive Limit provision could compromise VOC emission reductions which have already been claimed by ARB to U.S. EPA for State Implementation Plan credit in other product categories. By making the change suggested by the Commenter, an aerosol "Brake Cleaner," meeting a 45 percent VOC limit, could relabel as a "General Purpose Degreaser" and make claims to degrease a variety of metal parts, which could include brakes. Thus this product would meet the definition for General Purpose Degreaser and by doing so, become subject to a limit of 50 percent by weight for aerosols. To preserve emission reduction benefits of the regulation it would be inappropriate to exclude General Purpose Degreaser from the Most Restrictive Limit provision. For this reason, staff did not exclude General Purpose Degreasers from the Most Restrictive Limit provision as the commenter requested.

2. **Comment:** Exclude Insecticides and General Purpose Degreasers from the modified Most Restricted Limit provisions. (CSPA-1)

Agency Response: This comment is addressed in the response to the previous comment. In addition, it is not appropriate to exclude all insecticides from the Most Restrictive Limit provision (as opposed to just insecticide foggers and lawn and garden insecticides) because such a revision would open a huge loophole; manufacturers could simply relabel many of their products in order to become subject to less stringent VOC limits.

3. **Comment:** The single most important concern for us is the proposed Staff proposal to change the definition in Section 94512 (a) so that a product's category would be determined by means different than the original definition. The "most restrictive limit" proposed definition would, we believe, be counter-productive and would force insecticide producers to "split" existing product labels or reformulate products yet again.

I personally remember working with Ms. Peggy Tarrico and her staff on this issue in the late 1980's when the original regulations were being drafted. The definition was crafted to focus the attention on the front panel of a product, specifically insecticide products, because insecticide products are typically labeled with primary claim and secondary claims. The primary function of the product is typically in the product name and described further in the front panel or principle display panel. Secondary claims are placed in the "Directions For Use"

on the back panel. These secondary claims are put on the label to allow a consumer to legally use the product for these secondary uses when they are using the product in the back yard or wherever they are using the product. The Federal Pesticide law, FIFRA, requires all claims for a pesticide to be registered and the labels also warn a user that "It is a violation of federal law to use this product in a manner inconsistent with its labeling."

In other words, if you were using a flying insect killer aerosol in your back yard before you were having guests over for a barbeque, unless the product is labeled for "ants", you cannot legally use the product to spray ants on your patio or deck! Every pest and every site that you use a pesticide **must be explicitly stated** on the product label or you are in violation of the federal pesticide law for unlabeled use. This concept was understood by the Staff who created this definition years ago. The existing definition at Section 94512(a) was made because Staff recognized that products labeled with secondary uses were actually going to contribute to a smaller number of units on the shelf and thus, less actual VOC emission into the environment.

Included with this letter is a presentation that I made to David Mallory and several of his staff in March of 2004. The presentation includes some projections of the number of units of each *specific* category of product if the "most restrictive limit" definition is formally changed. I believe that the projections of the increases in units by category are realistic, based upon my experience in the pesticide business. In the 1980's, when I was the Manager of Registration and Regulatory Affairs for the ORTHO Division of Chevron Chemical Company, we had experience with just this situation. We "split" a label and only listed single uses on the label (flying insect killer, ant and roach killer, flea and tick killer, crawling insect killer, household insect killer, etc.) to evaluate consumer demand for "narrow use" products. After one (1) year, we determined that "splitting" and producing focused labels was very costly because we wound up producing more actual cans of product, had increased label (lithograph) costs, more transportation and shipping costs, and more costs related to inventory control. Furthermore, consumers did not want to buy 6 cans of "focused" products to replace the one unit previously sold which had a primary use category and secondary uses as well. This supports my table and supports the fact that the definition change will force a ***real net increase in emissions of VOCs***. The conclusions presented here are the result of my experience of 30 years at ORTHO, one year with SOLARIS (the ORTHO brand under Monsanto ownership), and ten years with MGK.

I strongly urge you to reconsider and oppose the proposed change to the definition in Section 94512 (a). It ***will result*** in a net increase in VOC emissions, if adopted. If you decide that pesticides regulated by the US EPA represent a unique situation, you could exempt them from the definition change.

The last point that I would like to make is a very important one; if the Board *does revise* and approve the new definition as proposed by Staff many products that now meet the existing definition will suddenly be at risk of enforcement action because they do not meet the new definition. There is no "phase in" period and how can there be a phase in period for a definition? The ARB has simply changed the way that it decides what category a product falls into and there is ***no time*** for an existing product that meets the present definition and process to meet the new definition. (MGK)

Agency Response Most of the issues raised in this comment as addressed in the agency response to Comment No. 1. There is a phase-in period for the changes; they will not go into effect until January 1, 2008 for insecticides. In addition, the changes to the Most Restrictive Limit provision would simply require the manufacturer to meet the lowest applicable VOC limit based on claims made. The proposal does not require manufacturers to reformulate. It is a business decision to choose the claims made on a product label. Products can continue to make multiple claims as long as the product meets the lowest applicable VOC limit. Staff's proposal is designed to ensure that products meet the lowest applicable VOC limit. Only in this way will emission reductions be fully realized

Staff also is not requiring products to be "split" into single use products. Manufacturers must make a business decision as to how best to manufacture and market their products. Based on the strategy chosen, some manufacturers may experience some cost increases. Staff disagrees that overall emissions would increase as a result to changes to the Most Restrictive Limit provision. The commenter has not really explained why he believes that these changes will result in emission increases. The apparent basis for this claim is that consumers may purchase several products instead of just one, but this would not necessarily result in an emissions increase because consumers would simply use several cans of products more slowly instead of using up a single can in a short period of time. To the contrary, each time a Flying Bug Insecticide is used to kill crawling bugs, it results in excess VOC emissions because Flying bug products (25% standard) are higher in VOC than crawling bug products (15% standard). Allowing multiple claims on a flying bug insecticide could therefore result in more emissions, not less.

As explained in the responses to Comment No. 1, 2 and 155, it is not appropriate to exempt all pesticides products from the Most Restrictive Limit provision, but it is appropriate that the categories "Insecticide Fogger" and "Lawn and Garden Insecticide" be excluded.

4. Comment: Most Restrictive Limit -- The ARB staff has proposed a change in Section 94512(a) under the Administrative Requirements, thereby changing the criteria for defining what consumer product category a product was assigned to, which completely alters the historical intent of the Consumer

Product Regulation. At the present time, one looks at the principle display panel of a consumer product to determine which category the product is assigned to. The proposed change in the definition ignores the history and negotiations that took place more than 15 years ago. (I personally know because I was there, although I represented a different company)

At the time that the ARB staff was constructing the regulations to implement the Law, the Chemical Specialties Manufacturers Association (CSMA) now the Consumer Specialty Products Association (CSPA), worked diligently together to craft workable definitions. Staff recognized the unique situation of consumer pesticides, and insecticides specifically, because these products were then regulated by the US Environmental Protection Agency (EPA) and the California Department of Food and Agriculture (CDFA). Pesticides in California are now regulated by the EPA and the California Department of Pesticide Regulation (DPR). Not only are the words on the label regulated and approved before a product can be marketed, but the composition of each product is also reviewed and approved before the product can be marketed.

It was further recognized that there were long delays in obtaining approvals from the agencies and that manufacturers could not apply for concurrent approval. We also made the case that all formulation ingredients had to be on the Section 180.1001 list as published in 40 CFR. We cannot use just any substance as a diluent or carrier for a product. Furthermore the diluent that the ARB supported most, water, was not compatible with all active ingredients used in pesticide products.

The economics of using tap water instead of the complex mixtures of chemicals used in most consumer pesticide products would certainly favor tap water. Technology has enabled industry to make water based products with some active ingredients but certainly not all active ingredients. Hydrocarbon propellents are still the "only" propellents for these products, despite a considerable amount of research and development.

We demonstrated to the ARB staff that for an aerosol insecticide product that is a flying insect killer (FIK) because of the product name or front panel statements, the product might also list other uses on the back panel of the label so that it would essentially be a "multi-use" product. The primary use of the product was for the control of flying insect pests. Historically, products were labeled for the other pests to enable the customer to have one product that could legally be used for different use patterns. Incidentally, it is a violation of federal law to use a pesticide product in a manner not described on the label. It simply made sense to give a consumer the legal ability to use one product for several different uses. If you are using a FIK product and you see ants or roaches or earwigs, why not enable the user to spray those pests as well.

This is not to deny the fact that there are many consumer insecticide products on the shelves that are focused products, in terms of product name and use directions. At the present time, however, the "multi-purpose" category is being challenged by the staff proposal to require that the entire label be considered in determining the product category and thus the VOC limit. This is "the most restrictive limit" principle.

The existing text of 94512(a) was thus the subject of several years of study and negotiations between the ARB staff and the consumer pesticide industry. It was recognized that a "multi-use product" was valuable to the consumer, and it probably contributed to an overall reduction in the amount of VOC discharge through product use. Now this principle is being challenged by the proposed definition change.

It should be acknowledged that a single EPA and DPR registered product label can be "split" and alternate brand names can be registered. It must be noted, however, that DPR has recently changed its registration fee from $200 per brand name to $750 per brand name per year. Thus the cost to register single product in all states has increased dramatically. All states require that each brand be registered, so the total to register one (1) product is $9,860.00. EPA is increasing fees and imposing new fees on all pesticide products.

There is clearly an economic incentive to market multi-use products. Also, split labels mean much greater costs in terms of can inventories, labels, valves, actuators, etc. Warehousing of product becomes more costly and so does transportation of goods. Who pays these additional costs? Consumers do in the cost of a product. These are not costs that are "eaten" by a manufacturer.

As noted, it is possible to market split labels based on a "master" label registration, but ARB should be cautious about forcing splitting by revising the definition in 94512(a) because it could and probably would result in more units being sold, all of which comply with the appropriate VOC standard, but you would simply force more units to be produced, thus more VOC would be discharged into the environment. That would be counter to the goals of the ARB. Please see the attached table regarding VOC emissions resulting from "splitting" labels.

The original definition was carefully thought out and agreed to 15 years ago. It was recognized then that there is a considerable benefit to having multi-use products available to consumers. Benefits accrue to the consumer, the manufacturers, to the ARB, and to the environment. Revising the definition is "not a good thing." Times change and needs change, but this definition should NOT be changed unless consumer insecticides are specifically excluded from the definition change. (MGK)

Agency Response: This comment is addressed in the responses to the previous comment and Comment No. 1.

5. **Comment:** Most Restrictive Limit (Section 94512(a)) -- While the recent modifications to this section of the proposed amendments are appreciated, as stated previously, the ARB should hold to its long-standing practice of categorizing products based on the information displayed on the principal display panel and the overall intent described through product use instruction; not the isolated and often peripheral recommended uses that might be referenced on a product's package. Adhesives and sealants are truly unique in that they are typically used for a wide variety of applications beyond those described on the product package; even when an adhesive is marketed as general purpose. If the most restrictive limit proposal is adopted, members of the adhesive and sealant industry will have to review all product lines and, if peripheral marketing claims are identified, packaging will have to be changed at a considerable expense. At that point, consumer will then likely call manufacturers such as DAP to inquire about such peripheral uses since they are logical extensions in the mind of most consumers, and when such peripheral uses are acknowledged as being appropriate the product will continue to be used as it is today. Further, if the scope of the language on a given adhesive or sealant label is narrowed to avoid unfair regulation due to a peripheral use, and users will continue to use the product for such applications but will be forced to guess as to proper application techniques. With such quesswork applications, failure is inevitable. The result will be unhappy end users who will be inclined to file complaints with the company or worse yet, lawsuits due to product label design defects. We again request the Board to forego this portion of the proposed amendments at this time to allow for the development of a more well thought out method of accomplishing the intended objectives. (DAP)

Agency Response: The comment is addressed in the response to Comment No. 1. With regard to adhesives and sealants, staff does not believe that this category is "truly unique." The category of "General Purpose Adhesive" was designed to encompass adhesives that are used for a wide variety of applications. "General Purpose Adhesive" has a VOC limit of 10 percent, while other categories of more specialized adhesives all have higher VOC limits. To avoid increased emissions, staff does not want to encourage consumers to use other types of adhesives in place of general purpose adhesives. It is also difficult to believe that many consumers will complain to the manufacturer if a product does not work for an application that is not indicated on the product label. With regard to sealants, there should be no problem within this category since all "Sealants and Caulking Compounds" are subject to the same VOC limit. Finally, if a manufacturer wants to claim that a product is both an "adhesive" and a "sealant", the Most Restrictive Limit provision should apply because this is a specific example of the type of situation it was intended to address.

6. **Comment:** Most Restrictive Limit -- The proposed amendment to Section 94512(a) could fundamentally change the current system of product classification and impact large numbers of products and numerous product categories. The practical impact of this proposed amendment would be to

retroactively re-regulating (sic) many categories of products. As a result, many companies would be required to review hundreds of product labels to re-determine if certain products might now fall under a new category due to incidental uses or claims. The ARB has not considered the significant cost to product manufacturers of this label review.

Federal regulations promulgated by the Federal Trade Commission and Consumer Products Safety Commission (16 C.F.R. § 500.2(h) (2003)) specify that the primary display panel be the definitive statement of a product identity and usage. Therefore, product categorizations should not be based upon incidental or minor uses that might appear elsewhere on the product's label or packaging.

If this change is made, it would be particularly troublesome for General Purpose Degreasers that are not currently exempt from section 94512(a). These products by their nature are effective on a variety of substrates and are often used in multiple operations. The application of the revised Most Restrictive Limit provision for General Purpose Degreasers would impose infeasible VOC limits or require label revisions that would eliminate needed consumer information describing where a specific product is most effective. For this reason ASPA urges the ARB to exempt General Purpose Degreasers, from the Most Restrictive Limit provision.

If the ARB goes forward with this change to the Most Restrictive Limit ASPA is willing to work with the ARB and our members on the onerous task of reviewing labels to comply with this provision, as long as, the suggested exemption for General Purpose Degreasers is provided. (ASPA-1)

Agency Response: The comment is addressed in the response to Comment No. 1.

7. Comment: The definition of Metal Polish/Cleanser also needs to be modified in view of the modified Most Restrictive Limit provision, to exclude several other types of products that may have uses that improve the appearance of metal surfaces. We recommend the following:

> § 94508(a)(94) [...] "Metal Polish/Cleanser" does not include [...] "Bug and Tar Removers," "Electrical Cleaners," "Energized Electrical Cleaners," "Electronic Cleaners," "Lubricants," [...]

(CSPA-1)

Agency Response: Staff evaluated the definition of Metal Polish/Cleanser and those for "Bug and Tar Removers," "Electrical Cleaners," "Energized Electrical Cleaners," "Electronic Cleaners," and "Lubricants," and did not find a definitional change to be appropriate. “Bug and Tar Removers” are essentially automotive detailing products, which are already excluded from the

"Metal Polish/Cleanser" definition. "Lubricants" are products which reduce friction between moving parts. As for excluding "Lubricants," staff is not aware of any lubricant product "designed primarily to improve the appearance of finished metal……" as defined in the definition of "Metal Polish/Cleanser." While use of "Electrical Cleaners," "Energized Electrical Cleaners," and "Electronic Cleaners" could have the ancillary benefit of improving the appearance of metals, their primary function is to degrease various electrical and electronic equipment. If claims on "Electrical Cleaners," "Energized Electrical Cleaners," and "Electronic Cleaners" are too broad then label claims would be evaluated as to if "Metal Polish/Cleanser" is the category that best describes the product. Thus, staff concluded that excluding these product categories from the definition of "Metal Polish/Cleanser" is not necessary.

8. Comment:

CSPA member companies are willing to support adoption of the proposed amendments if several additional modifications are made:

> Modify the definitions of Air Freshener, Fabric Refresher, Metal Polish/Cleanser and Wood Cleaner to avoid unintended consequences in applying the modified Most Restricted Limit provisions.
>
> Exclude Insecticides and General Purpose Degreasers from the modified Most Restricted Limit provisions.

(CSPA-1)

Agency Response: The response to Comment No. 1 explains why it is not appropriate to exclude Insecticides and General Purpose Degreasers from the modified Most Restrictive Limit provision. The response to the previous comment explains why it is not appropriate to modify the definition of "Metal Polish/Cleanser." Staff worked closely with the affected industries to determine if any confusion or problems might result, however, and made appropriate technical modifications to the definitions of "Fabric Refresher" and "Wood Cleaner." For the definition of "Air Freshener," staff could not identify any problems that might result and did not make any additional modifications.

9. Comment: We remained concerned that the effective date for implementation of amendments to the Most Restrictive Limit definition will not be attainable for FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) regulated products. The proposed implementation date will require manufacturers to develop, test, and qualify new products in less than 3 months of the public hearing (June 24, 2004). This is an extremely short time frame for product development activities and will unfairly burden manufacturers of lawn and garden products that are subject to federal (EPA) and state California

Department of Pesticide Regulation (DPR) product registration requirements. (Scotts)

10. Comment: We currently offer a Flying Insect Control Product that is also labeled to control household crawling insects (ants, cockroaches). Adoption of the proposed Most Restrictive Limit definition will lower the VOC standard for this product from 25 to 15 percent VOC. The crawling bug uses will be removed from the subject label and a new product will be offered to consumers in California to control these household pests. The new product must be registered at both the federal and state level prior to manufacture and distribution for sale in the state. Federal (EPA) registration of a new product consumes 10 – 16 months and registration by the DPR consumes an additional 12 months. (Scotts)

11. Comment: In order to comply with the proposed effective date of January 1, 2007, for the amended Most Restrictive Limit definition, we would need to develop and submit a new product registration to EPA by September 1, 2004. Formulation development, product efficacy testing, stability testing, and packaging and label development activities would not be able to be accomplished in this short time frame.

We request the Board adopt the one-year FIFRA product extension that has historically been applied to the introduction of new product categories and amended VOC standards as it considers adoption of the amended Most Restrictive Limit definition. (Scotts)

Agency Response: These comments are addressed in the responses to Comments No. 1 and 3.

12. Comment: Section 94512(a) Most Restrictive Limit -- The proposed changes to this section of the consumer products rule, despite the recent alterations made at the request of industry, will still have significant negative impacts on the consumer products industry as well as the Air Resources Board. We urge ARB staff to rescind this language and continue to look for some compromise solution that responds to the agency's compliance concerns but still allows the consumer products industry some flexibility to discuss the "minor" or ancillary uses of certain products.

While NPCA certainly appreciates the Air Resources Board decision to limit the 'product category review' to the product's container, packaging and stickers rather than any and all accompanying promotional literature, this provision still makes it impossible for consumers to learn of other, secondary uses of certain products. While the advertising and marketing claims focus on the primary use of a product on the principal display panel, alternative or secondary uses of a product are also typically mentioned on other panels of the product or in accompanying sales or advertising literature. The ARB's proposal will have a

censoring effect on the marketing of consumer products if the mention of such minor uses will automatically subject them to lower VOC standards.

Additionally, this rule, as written, applies to all types of consumer products, except for general purpose cleaners. Consequently, all other consumer products including contact adhesives. adhesive removers, all other solvent-type products and personal care products would be subject to this provision. This rule, a 'one size fits all' is not appropriate for the wide range of products that are covered under the consumer products rule. Personal care products are marketed in unique and different ways from adhesive products and adhesive products are marketed in different ways than other specialty products. This rule will affect some products more profoundly than others.

Historically, claims made on the principal display panel of the product have identified the consumer product category for regulatory purposes in California. Broadening this rule to include language on other labels on the container and the packaging will significantly change the manner in which consumer products are marketed.

This censoring effect on the marketing claims will also result in significant confusion to consumers. Because of this proposal, marketers will be forced to eliminate claims for minor or ancillary uses from labels in order to avoid being reclassified. Consumers who have used these products for specific uses in the past may not recognize a product with a new label and will begin searching the label for mention of the minor or ancillary use. Consumers now will be guessing at which product they could use to accomplish their goal. Such guesswork can and will lead to performance failures which will cost the manufacturer a customer and possibly require the defense of a lawsuit.

NPCA urges the Air Resources Board to take a step back and re-evaluate this proposal. There is no reason to move forward on this proposal right now. There will be another rulemaking activity very soon which could allow continued discussion and negotiations with industry members. The Air Resources Board should reject this specific proposal. (NPCA-1)

Agency Response: This comment is addressed in the response to Comment No. 1.

Product Dating and Labeling

13. Comment: Section 94512(b) - Product Dating -- CSPA recognizes the ARB Enforcement Division's need to determine the date of manufacture for products that are subject to VOC standards with future effective dates. Changes

to product date coding systems, however, can require very significant costs to product manufacturers.

CSPA members are willing to accept the changes now being proposed in this Section if special provision is made for certain multi-unit packages which cannot easily be made to comply with the provision that product codes be accessible without irreversibly removing any product packaging. We therefore urge that the following revisions (as indicated by bold italicized text) be made to Section 94512(b)(4):

> (4) For products manufactured on or after January 1, 2006, the date or code shall be displayed on the product container such that it is readily observable without irreversibly 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 **irreversibly** removing any product packaging. **These requirements only apply to the outer wrapper or container of multi-unit packages sold to distributors or retailers if the sell-through period for one or more of the products will expire six months or less from the date the multi-unit package is sold.**

This proposed revision to the product dating provision will ensure that ARB can clearly identify multi-unit packages that contain products that are nearing the end of the applicable limitation set by Section 94509(c). (CSPA-1)

Agency Response: The proposed language is not appropriate. It is not appropriate to add the word "irreversibly" because it will not work for ARB inspectors to take apart a product's packaging in store aisles at retail outlets. It is staff's view that retailers would not appreciate ARB inspectors disassembling products and would not be propitiated by an inspector's promise to "put it all back together again" when the inspection is complete. The last sentence of the proposed language is also not appropriate because six months is not long enough to ensure that products will be sold by distributors or retailers.

In response to the commenter's concerns, however, staff added language in section 94512(b)(5) and 94509(c)(1)(D) to address the multi-unit packaging issue. The language provides two options for product dating of multi-unit packages. The manufacturer has the option of using the date of assembly to represent the date of manufacture for all products contained within a multi-unit package as long as the date of assembly is readily observable without irreversibly disassembling any portion of the container or packaging. These sections were modified to meet the concerns of industry so they would not have to display the date for each individual unit in a multi-unit package. In addition, manufacturers do not need to display any date on a multi-unit package if they are willing to forgo the three-year sell-through period (e.g., in situations where the

sell-through period is unnecessary because the individual product units comply with the VOC standards in effect when the multi-unit package is sold.)

14. **Comment**: Section 94512(c) - Additional Product Dating Requirements -- ARB proposes to add a new provision at Section 94512(c)(4) stating that codes indicating the date of manufacture are considered public information and may not be claimed as confidential. CSPA strongly disagrees with ARB's decision to include this statement as part of the regulation. As a practical matter, a company's date codes provide more than just the date of manufacture. Many companies use these codes as part of their product stewardship programs to convey information such as the location of the manufacturing facility and manufacturing batch number.

The consumer products industry is extremely competitive. If not properly protected, product date code Information could be used by competitors to determine the sales trends for specific products (e.g., by conducting surveys of products on retail store shelves). Disclosure of this information could have significant adverse impact on company's legitimate business interests. Thus, a company should be allowed to defend its assertion of confidentially; ARB should not automatically foreclose a company's ability to protect its legitimate expectation of privacy.

Moreover, the case cited by ARB in its Initial Statement of Reasons is a superior court decision; as such, it is merely persuasive - not mandatory -precedent. Therefore, CSPA urges ARB to delete this new subsection in its entirety. (CSPA-1)

15. **Comment:** I just raise a concern that I raised in our written comments about confidentiality and taking a firm position in the proposed regulation that these date codes -- product date codes are not eligible for consideration as confidential material. I think that's really a matter for a court to consider ultimately if some company wants to pursue seeking confidential treatment. And the only thing we take issue with is we don't think it's appropriate to just make a categorical statement of that sort in the regulation itself, but we don't propose to debate that any further. Ultimately it's a legal issue. It's something to be -- that will be decided by a court. (CTFA-2)

16. **Comment:** Product Dating -- ASPA understands the need of the ARB to be able to determine the date of a product's manufacture to ensure compliance with VOC standards. However, ASPA believes that section 94512(c)(4) of the regulation should be removed to allow companies the opportunity to defend the confidentiality of these date codes.

This information should remain confidential because these codes often contain information, in addition to the date of manufacture, such as: the place of manufacture, the batch number, and product stewardship indicators. Since the

automotive specialty products industry is extraordinarily competitive, this confidential information could be used by competitors to ascertain detailed information on the sales trends of their competitors' products. Therefore, this information should not be public to protect the competitive marketplace. (ASPA 1)

Agency Response to Comments No. 14 - 16: Proposed section 94512(c)(4), title 17, CCR, states:

> "Codes indicating the date of manufacture are public information and may not be claimed as confidential."

The ARB staff's rationale for including this regulatory provision is set forth on pages V-53 and V-54 of the ISOR. There is one additional reason why this provision is good public policy: it will allow retailers and distributors to better comply with the consumer products regulation, thereby reducing the potential that noncomplying products will be sold in California. If a product displays a date-code that is kept confidential there is currently no easy way for distributors and retailers to determine when the product was manufactured. It is important to know the date of manufacture during the three year "sell-through period" after a new standard becomes effective. Products that do not comply with the new standard (but do comply with the previously applicable standard) can legally be sold in California for up to three years if the product was manufactured before the effective date of the new standard (see section 94509(c), title 17, CCR). For certain products, knowing when a product was manufactured is important in determining whether that product can legally be sold during the sell-through period. If date-codes are public information, this will assist retailers and distributors in complying with the law by avoiding the sale of products that are not legal to sell in California. This was one of the reasons given by the Sacramento County Superior Court to justify its decision that date-codes are not entitled to confidentiality protection under the California Public Records Act (see Judgement and Order filed October 14, 2003, in *Pro's Choice Beauty Care, Inc. v. California Air Resources Board* (Sacramento County Superior Court, Case No. 02CS01580)).

The commenters have offered several arguments to support its position that section 94512(c)(4) should not be adopted. None of these arguments are persuasive. The commenters CSPA and ASPA argue that a company's date-codes provide more information than just the date of manufacture. They state that these codes often convey information such as the location of the manufacturing facility and product batch number, and implies that some of this information may constitute trade secrets entitled to confidentiality protection. It is true that many products display a long string of coded numbers and/or letters. Some of these numbers and letters may indicate the date of manufacture, and some numbers and letters may indicate information other than the date of manufacture. The commenters' argument is not persuasive because the

proposed amendments require only the disclosure of the portion of the coded information that indicates the date of manufacture. The proposed amendments do not require the disclosure of any other portion of the coded information. Therefore, the proposed amendments do not require the disclosure or any coded information that might qualify as a trade secret.

CSPA also states that product date-code information could be used by competitors to determine sales trends for specific products (e.g., by conducting survey of products on retail store shelves). The commenter does not explain exactly how date-code information would be useful in this endeavor and the ARB staff is not aware of any practical way that such information could be used to determine sales trends. There are also much better ways to determine sales trends instead of trying to use date-codes. A great deal of information on sales trends and other issues can be found in trade publications and other publicly available sources. Sales trends for particular products can also be ascertained by purchasing this information from one of the commercial businesses (such as IRI) that compile the information from sources such as bar-code scanners at supermarkets and drugstores. Information purchased from these businesses would be far more accurate (and possibly less expensive) than sending out numerous individuals to conduct retail shelf surveys.

The commenters further argue that individual companies should be allowed to defend their assertions of confidentiality for each individual date-code, and that the ARB should not adopt a regulation which generally applies to all date-codes. The ARB does not agree. Date-codes are a particular, well-defined category of information. It is extremely unlikely that one individual company could come up with a plausible argument why its particular date-code is a trade secret when other date-codes are not. This rulemaking provided an opportunity for individual companies to submit such arguments, but none did so. The only arguments presented were by the commenter CSPA (an industry association) and none of CSPA's arguments are persuasive. Moreover, the arguments regarding the confidentiality of date-codes were thoroughly explored by ARB staff in the preparation, briefing, and oral argument for the lawsuit cited above. Staff spent many hours in conversations with consumer product manufacturers regarding possible harm that they might suffer if date-codes were disclosed to the public. Although the ARB staff initially took the position that date-codes were entitled to confidential treatment, during oral argument in the Superior Court it became apparent that staff's position was not well taken. The commenter is correct in observing that this case is a Superior Court decision which is not binding legal precedent. For the reasons expressed above, however, staff believes that the decision was correctly decided and it is appropriate to include section 94512(c)(4) in the proposed regulations.

17. Comment: Product Dating -- SCJ, like other manufacturers, stamps information on all its products that can be used to determine the exact date a product was filled. SCJ appreciates the fact the ARB enforcement staff consults

the date code on a product when conducting shelf inspections for compliance purposes. However, this is not the primary purpose of the coded Information on a product. SCJ does not support the proposed change in the regulation pertaining to product dating in Section 94512(b)(4), and does not believe that the costs to conform to the change have been adequately assessed. In lieu of adoption of the proposed amendment, SCJ recommends that this issue be set aside at this time and re-examined in CONS 2. As a compromise, SCJ would support the language proposed by the Consumer Specialty Products Association. (SCJ)

18. Comment: Product Dating (Section 94512(b) and (c)) -- Changes to current company procedures to place "date codes" on their products, which vary widely within the industry, present serious issues of confidentiality, possible consumer confusion, and, because these codes often coexist with other codes regarding product manufacture, potential conflict with the ability to track products in order to protect consumer safety. While we understand that the ARB seeks maximum efficiency for its enforcement personnel in ensuring that only ARB-compliant products are sold in California, this must be balanced with the importance of these other considerations.

We appreciate the extended discussions with the ARB staff on this issue. Products are sometimes sold in multi-product packages containing two or more different products with different manufacture dates. Placing product codes so that they are externally visible for each of the products in these packages without irreversibly opening or destroying the product packaging is often not practical for these products.

Therefore, we recommend this requirement be limited to situations where one or more of the products contained inside is subject to a sell-through period that will expire within six months. This will allow the manufacturer or distributor the option of not including such products or taking whatever steps are necessary to make the individual product dates visible on the outside of the multi-product packages while preserving the ARB goal of protecting against the sale of noncompliant product as part of such a package. (CTFA-1)

Agency Response to Comments No. 17 - 18: Starting with the initial consumer products regulation in 1990, companies have been required to clearly display on each product the date of manufacture or a date-code. Each manufacture can choose how they put date-codes on their label so as not to confuse consumers or hinder their ability to track products in order to protect consumer safety. However, many companies had not been maintaining accurate date-code explanations which resulted in delaying investigations of non-complying products for ARB enforcement staff and in the removal of these non-compliant products by distributors and retailers, especially at end of the sell-through period or during recalls. The proposed language gives manufacturers the options to use a standard code that requires no annual reporting, report their

code explanations on an annual basis, or to put the actual date of manufacture on their products so all concerned parties are able to decipher the date of manufacture, thereby assisting them in selling compliant products.

Regarding the "visibility" requirement is section 94512(b)(4), it is not reasonable to expect retailers, distributors, and ARB inspectors to disassemble packaging to determine if products are subject to specific VOC limits. This provision is consistent with similar provisions that currently exist in the aerosol coatings regulation and the antiperspirant and deodorant regulation. These existing provisions have worked well in practice and have not shown to be a significant cost burden on manufacturers. Therefore, the ARB does not believe that including the same provision in the consumer products regulation will cause any of the potential problems mentioned by the commenters. Finally, the issues raised about multi-unit packaging are addressed in the responses to Comments No. 13 and 156.

19. Comment: The ARB staff has proposed regulations for date coding and specifically as to how they apply to multi-product pacts. It's a very complex subject, and the ARB has been working right up to the deadline to try to come up with proposals to meet some of our concerns. We've had last minute proposals that we've suggested to them that we think meet them half way. And we very much appreciate your willingness to grant some flexibility in the 15-day period so that we can resolve that. I'm confident that we can resolve it. But I think it just takes further discussion for us to understand their concerns and for them to understand how these products are marketed. So that flexibility will be a big help. (CTFA-2)

20. Comment: Product Dating -- The Gillette Company is concerned with the product-dating requirement for products sold in "multi" or "combo" packages. Dating the outside of the packaging material is not practical for these multi unit/product packages as the units are built (and dated) from multiple filling runs before assembly into the final "multi" or "combo" package. Thus the required product dates could span a number of dates for multiple products and would be very difficult to execute on the factory floor. The Gillette Company strongly supports the elimination of this requirement, as the outside package product dating would be very burdensome for the relatively small number of "multi" or "combo" pack units produced. (Gillette)

21. Comment: ASPA is willing to accept the changes to code-dating currently proposed in Section 94512(b). However, we would also request that a special provision be made for multi-unit packages. These products cannot easily comply with the provision because to do so would permanently remove these products from their multi-unit packaging.

ASPA, therefore, supports the following amendment (to Section 94512(b)(4)) being offered by the Consumer Specialty Products Association (CSPA) (as indicated by bold italicized text):

(4) For products manufactured on or after January 1, 2006, the date or code shall be displayed on the product container such that it is readily observable without irreversibly 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 ***irreversibly*** removing any product packaging. ***These requirements only apply to the outer wrapper or container of multi-unit packages sold to distributors or retailers if the sell through period for one or more of the products will expire six months or less from the date the multi-unit package is sold.***

(ASPA-1)

Agency Response to Comments No. 19 - 21: To address industry concerns about multi-unit packaging, sections 94509(c)(1)(D) and 94512(b)(5) of the date-coding requirements were modified and made available for public comment during the 15-day comment period. These modifications and the commenter's concerns are discussed in the responses to Comments No. 13 and 156.

22. Comment: CSPA is concerned regarding the perceived need to have additional consumer product "labeling requirements" to identify the subcategory and VOC limit for the product. Even where this information can be included as part of the date code on the bottom of the container, this type of labeling represents an unnecessary burden for manufacturers that provides no discernable environmental benefit. (CSPA-1)

Agency Response: Industry provided numerous comments that several categories (adhesive removers, electrical/electronic cleaners, contact adhesives) needed to be subcategorized and separate VOC limits for these subcategories should be established. ARB staff agreed for certain categories. However, product labels do not always indicate the specialized use. Generally, these products for specialized uses are allowed higher VOC content. Therefore, the labeling requirements are necessary to aid in enforcement of the subcategories and achieve the maximum feasible VOC reductions.

23. Comment: Product Date Coding -- ASC and its members also are pleased that ARB has agreed to allow manufacturers to continue to take advantage of the use of their existing date code procedure with an annually provided explanation of that system. For companies presently utilizing their own product date code system, this revision will save them from having to make large investments in new labeling equipment that would print the date of manufacture in a Julian date format. (ASC-1)

Agency Response: Comment noted.

Notification of Sell-through of Products

24. **Comment:** Section 94509(c) - Sell-through of Products -- CSPA members do not oppose ARB's proposal to require notification to distributors and retailers if a non-complying product is shipped into California in the final six months of its sell-through period. Even though this provision will impact only a tiny percentage of products shipped each year, establishing compliance assurance systems will require significant time and effort for many companies, especially numerous small manufacturers with slow-moving products. This is the only proposed administrative provision modification for which no effective date is given, which means that this requirement would go into effect as soon as the Office of Administrative Law approves the final rule. Our members cannot establish compliance assurance systems retroactively. Therefore, CSPA urges that the following provision be added to Section 94509(c)(2): "This notification requirement applies to all products subject to a VOC limit with an effective date on or after December 31, 2004." (CSPA-1)

Agency Response: As requested by the commenter, section 94509 (c)(2)(D) Notification for products sold during the sell-through period was modified to specify that this provision applies only to products subject to a VOC standard with an effective date on or after December 31, 2004.

25. **Comment:** Notification of Sell-Through of Products (Section 94509(c)(2)) -- While we appreciate the recent modification to this section of the proposed amendments, it still creates a significant and unnecessary burden for those companies making a sincere effort to notify its customers and control the flow of non-compliant product into the State. As stated previously it is not practical for a given manufacturer to notify interested parties six months prior to the expiration of a sell-through period. Doing so would put a considerable administrative burden on manufacturers. Sell-through provisions often extend three years beyond the date on which a new standard goes into effect. Due to the rapidly changing ways in which products are distributed and the considerable length of time that elapses, new tracking systems would have to be implemented. DAP has gone to great lengths in the name of customer service and product stewardship to notify its customers in writing when a VOC limit is going to change. This is more feasible and cost effective and has always limited the presence of products on the shelf after a sell-through period has expired. Recognizing that the large majority of products do in fact move through the chain of commerce fairly rapidly (typically long before expiration of a sell-through period), imposing additional tracking requirements will bring little additional benefit for the substantial additional effort/cost imposed. Instead, the Board and its enforcement staff are encouraged to more aggressively enforce the current

regulations for those manufacturers found to repeatedly be in significant non-compliance. (DAP)

26. **Comment:** Section 94509(d) *[94509(c) ?]* Notification of Sell-through of Products -- In this section, ARB proposes to require written notification from any person who sells or supplies regulated consumer products to the purchaser of the date that the sell-through period will end. This written notification is required only if the product is sold or supplied to a distributor or retailer during the last six months of the sell-through period and the product does not comply with the lowest applicable standards. NPCA opposes this proposal as it only adds to the mountain of paperwork required by needless government regulations.

While this revised proposal is much more palatable to the industry than originally proposed by the ARB at the beginning of this rulemaking, it remains a burdensome, needless activity that is being imposed upon the industry because the agency refuses to aggressively enforce existing regulations. If the current regulations were enforced, errant manufacturers would be forced to focus on this issue within its own distribution chain and ensure that products in the "sell-through period" were monitored very closely. If they fail in this function, they and their customers should receive "Notices of Violations."

The ARB's concerns, as discussed in the Initial Statement of Reasons do not support the imposition of needless notification requirements. The Air Resources Board should address these concerns by utilizing its compliance and enforcement authority with determination, not imposing additional requirements.

Adoption of this provision could still result in the constant flow of such "expiration notices" to distributors and retailers to the extent that these communications become meaningless. Good corporate citizens who are interested in maintaining good customer relations already provide similar notices in some fashion. There is no pressing need to adopt this provision. (NPCA-1)

Agency Response to Comments 25 - 26: Most of the issues raised by the commenters are addressed in the rationale for this proposed provision, which can be found on page V-50 of the ISOR. As mentioned there, this provision should not place an undue administrative burden on most companies because the majority of products are sold well before the final six months of the sell-through period, and many companies which do sell products within the final six months already notify their purchasers about the end of the sell-through period. The fact that many companies already do this contradicts the commenter's assertion that notification "is not practical." Manufacturers can also minimize their notifications and the associated cost by not manufacturing excess amounts of product that may take up to three years to sell.

ARB staff acknowledges that many companies have initiated positive changes to alleviate sell-through issues. Staff has seen computer-based

systems that notify customers that they will no longer be able to order or sell specific products in California. Memos, bulletins, or automated e-mails are sent out on a periodic basis notifying distributors and retailers of expired products. Companies may also note sell-through dates on invoices. This protects the manufacturers as well as the distributors and retailers from being caught unaware that they are selling non-compliant products. Unfortunately, some manufacturers and distributors have continued to sell products manufactured prior to the effective date of the VOC limit right up to the very end of the sell-through period. The provision is necessary to minimize the number of retailers and distributors that are either stuck with products they cannot sell or else unknowingly sell non-compliant products.

27. **Comment:** Notification of "Sell Through" Period Expiration -- Finally, ASC and its members commend the ARB's decision to require that manufacturers must only notify distributors and retailers of the "sell through" deadline 6 months prior to the effective date of the rule. By dropping an earlier proposal that would have required informing all customers who had received regulated products during the prior three years, the agency has eliminated what could resulted (sic) in a compliance nightmare for our members.

ASC believes this compromise approach will address both the concerns of the ARB staff and manufacturers, who maintain an ongoing interest in keeping their present customers informed of upcoming changes in California's VOC requirements. (ASC-1)

Agency Response: Comment noted.

Test Method 310 Update

28. **Comment:** CSPA does not object to any of the modifications proposed for Method 310. (CSPA-1)

Agency Response: Comment noted.

Prohibition of Para-dichlorobenzene, Perchloroethylene, Methylene Chloride, and Trichloroethylene

29. **Comment:** I support the proposed ban on para-dichlorobenzene use in toilet/urinal care products. This compound is a carcinogen. (Petersen)

30. **Comment:** I support the proposed ban on para-dichlorobenzene use in toilet/urinal care products. The products are harmful and the public should not be exposed to them. (Ponos)

31. **Comment:** US EPA supports the proposed prohibition on PDCB toilet/urinal care products and also strongly supports ARB's proposed prohibition on the use of perchloroethylene, methylene chloride, and trichloroethylene in adhesive removers, contact adhesives, general purpose degreasers, electrical cleaners, electronic cleaners, footwear/leather care products, and graffiti removers. It is a reasonable pollution prevention approach to promote safer, cost-effective alternatives. We support the proposed amendments because there are feasible, cost-effective, less toxic alternatives to these products. Promoting those alternatives reflects US EPA's philosophy that pollution prevention and source reduction are an important strategy for improving human health and the environment.

US EPA supports pollution prevention alternatives for PDCB to improve both air and water quality. US EPA regulates PDCB as a Hazardous Air Pollutant (HAP). US EPA also has set acceptable levels for PDCB in drinking and waste water, and has targeted PDCB as a priority chemical for reduction under EPA's National Partnership for Environmental Priorities (a voluntary program geared to reducing 30 priority chemicals in waste streams). Many publicly owned treatment works (POTWs) in California have measured air emissions of PDCB, as it volatilizes from wastewater during the treatment process and thus is transferred from wastewater to the air. In addition, POTWs producing recycled water are required to meet California drinking water standards, including the 5 part per billion maximum contaminant level for PDCB. Several POTWs in California that produce recycled water have exceeded this limit. The primary source of PDCB are diffuse consumer products, primarily toilet deodorizers. A study done by the Sanitation Districts of Los Angeles County indicated that over 99% of PDCB influent to their wastewater treatment plants came from toilet deodorizers.

US EPA also supports ARB's recommendation that the use of perchloroethylene, methylene chloride, and trichloroethylene be phased out for adhesive removers, contact adhesives, general purpose degreasers, electrical cleaners, electronic cleaners, footwear/leather care products, and graffiti removers. These chemicals contribute to smog and are regulated as Hazardous Air Pollutants (HAPs) by US EPA, and Toxic Air Contaminants by ARB. These chemicals also pose a hazard to water quality. Despite recent regulations to reduce the use of these chemicals in automotive products, California POTWs are still receiving unacceptable levels of these chemicals in their influent. POTWs continue to experience effluent concentrations of perchloroethylene and methylene chloride exceeding the 5 part per billion concentration target for recycled water reuse. It is suspected that much of the perchloroethylene and

methylene chloride entering sewers is coming from consumer products, since other sources have been highly regulated.

US EPA has worked with state and local officials to demonstrate effective, less toxic alternatives to these chemicals in industrial solvents and aerosol products used for automotive repair. Despite regulation, there is evidence that the product categories targeted in the proposed ATCM have been used as alternatives to those regulated under past ATCMs. The proposed action would close that loophole and result in significant reductions in release of these chemicals to the air and water. (US EPA)

32. **Comment:** CSPA members are willing to support the prohibition of the use of para-dichlorobenzene in solid air fresheners and toilet/urinal care products, even though the limited one-year sell-through period may be challenging for a number of our companies. CSPA members that market para-dichlorobenzene-based products in these categories already manufacture and/or distribute alternative products that are acceptable in all of the markets they serve. For most (if not all) CSPA members, the phase-out of para-dichlorobenzene products will occur well before the proposed compliance date of December 31, 2006 (original proposal in May 7, 2004 ISOR). (CSPA-1, CSPA-2).

33. **Comment:** SCJ supports the proposal to ban use of para-dichlorobenzene in air freshener and toilet care products. While banning the use of a chemical for a particular use is an extraordinary step, we believe the staff report adequately documents the environmental and human health justification for this action. This is particularly true in light of the availability of alternative products for household use of comparable duration, efficacy and cost. (SCJ)

Agency Response to Comments 29 - 33: We appreciate the supporting information provided for the phase-out and prohibition of para-dichlorobenzene, perchloroethylene, methylene chloride, and trichloroethylene.

34. **Comment:** CSPA is also willing to support the deletion of the exemption for Air Fresheners containing at least 98 percent (98%) para-dichlorobenzene. As we noted above, CSPA members that market para-dichlorobenzene-based products in these categories already manufacture and/or distribute alternative products that are acceptable in all of the markets they serve. For most (if not all) CSPA members, the phase-out of p-dichlorobenzene products will occur well before the December 31, 2006, compliance date (original proposal in May 7, 2004 ISOR). (CSPA-1)

Agency Response: Comment noted.

35. Comment: Section 94509(n) - Requirements for Adhesive Removers, Contact Adhesives, Electrical Cleaners, Electronic Cleaners, Footwear or Leather Care Products, General Purpose Degreasers and Graffiti Removers -- CSPA members are willing to accept this section's prohibition of the use of chlorinated solvents in these product categories, even though this provision will make reformulations to meet the VOC limits imposed on these products even more difficult. We urge ARB, however, to assure that alternative VOC-exempt solvents are approved by the state in time to assure that this prohibition will not make the VOC limits for these products technologically or commercially infeasible. (CSPA-1)

36. Comment: Proposed VOC limits and Requirements for Adhesive Removers, Electrical Cleaners, Electronic Cleaners, General Purpose Degreasers and Graffiti Removers -- As proposed, section 94509(n) would prohibit of the use of chlorinated solvents in these product categories. This requirement will make it extremely difficult to reformulate products to meet these VOC limits. ASPA members are willing to accept the requirements of this section. However, we urge the ARB to ensure that alternative VOC-exempt solvents are approved by the State prior to the effective date, so that this requirement will not make the VOC limits for these products technologically or commercially infeasible. ASPA also urges the ARB to schedule a technological review one year prior to the effective date of the standard for these categories. This will be useful in determining if the standard is feasible for these product categories. (ASPA-1)

Agency Response to Comments 35 - 36: The Response to Comments 71 - 78 and to Comments 84 - 85 is incorporated herein. Staff proposed the prohibition on the use of methylene chloride, perchloroethylene, and trichloroethylene only after determining that feasible alternative technologies are available. Regarding VOC exemptions, California has a separate process and does not automatically exempt a compound after U.S. EPA has done so. Petitions for several compounds were received after the June 2004 Board hearing and are currently under review by ARB staff. If new compounds are exempted this will provide manufacturers with additional flexibility and may make it easier for them to achieve the VOC limits. Regardless of whether the ARB ultimately determines that these compounds should be exempted, however, the proposed limits for all product categories are feasible even if no additional compounds are exempted from the VOC definition. In other words, the staff determined that all proposed VOC limits are technologically and commercial feasible based on currently available technologies. Finally, ARB staff has committed to a technology review before the limit become effective to further ensure feasibility of the VOC limits (see response to Comments No. 140 - 144)

Request for Shortened Phase-Out Schedule for Para-dichlorobenzene, Perchloroethylene, Methylene Chloride, and Trichloroethylene

37. **Comment:** We support the proposed ATCM to prohibit use of para-dichlorobenzene in toilet/urinal care products. We also support the proposed amendments to the California Consumer Products Regulation, particularly the prohibition of the use of perchloroethylene, methylene chloride, and trichloroethylene in the seven product categories. We are concerned about the four chlorinated compounds due to both air quality and water quality reasons. These compounds enter wastewater treatment plants and volatilize, contributing to the air cancer risk to neighboring communities. Most of the remaining chlorinated compounds remain in the water and can have detrimental impacts on the water quality of recycled and/or discharged water. We believe the proposed compliance schedules are too lengthy. The measures would allow up to five and a half more years for phase-out. Substitute products are readily available and widely used. (Los Angeles-1, LVMWD, OCSD, OVSD, SCAP)

38. **Comment:** We strongly support the proposed ATCM to prohibit use of para-dichlorobenzene in toilet/urinal care products. We also strongly support the prohibition of the use of perchloroethylene, methylene chloride, and trichloroethylene in the seven product categories. However, we request the compliance schedules be shortened, because substitute products are readily available. We are concerned about the four compounds due to both air quality and water quality reasons. Para-dichlorobenzene is one of the major pollutants volatilizing at water treatment facilities and contributing to the air cancer risk to neighboring communities. Water from the facilities must meet drinking water standards. Para-dichlorobenzene has caused several exceedances of the water quality standard. Essentially all of the para-dichlorobenzene comes from toilet/urinal care products. Drop-in replacements for the para-dichlorobenzene products are readily available and widely used, and therefore we support a shortened one-year phase-out for para-dichlorobenzene. Regarding perchloroethylene, methylene chloride, and trichloroethylene, these compounds also volatilize into the air at water treatment plants and significantly contribute to cancer risk. POTWs must meet a 5 part per billion drinking water standard for perchloroethylene for water that is recycled. One can of perchloroethylene electrical cleaner can contaminate 8 million gallons of water. These products are available to consumers at automotive repair supply stores and may be mis-used for off-label purposes such as engine degreasing and brake cleaning. After use, the waste products may enter sewers. There have been effluent exceedances of the chlorinated solvents 5 part per billion target concentration. We suspect that much of these chlorinated solvent compounds entering sewers come from consumer products, since other sources, due to industry and commercial operations, have already been highly regulated. We believe that ARB's exemption of perchloroethylene as a VOC had spurred manufacturers to

reformulate consumer products with this compound to comply with VOC standards. We recognize that ARB has since rectified part of the problem with the adoption of an ATCM for automotive maintenance and repair activities. We recommend that the phase-out for these three compounds be shortened to the maximum extent possible. (AIR, CCA et al., CSDLAC-1, Tri-TAC-1)

39. **Comment:** We support the para-dichlorobenzene ATCM and the prohibition on the use of the three chlorinated toxic air contaminants in the seven consumer product categories. The proposal will benefit both air quality and water quality. One para-dichlorobenzene "bathroom cake" product can pollute four million gallons of water. Actually, most of the "bathroom cake" will go into the air to be breathed by janitorial workers, people using the restrooms, children visiting restaurants with their parents. But a little bit of the product does go down the sewer to water treatment plants, from where it mostly enters the air or in the water released. Chlorinated compounds do not break down well at water treatment plants. Para-dichlorobenzene is a carcinogen. The U.S. EPA does regulate para-dichlorobenzene in drinking water. While the U.S. EPA has set limits for several carcinogens, such as 5 parts per billion for methylene chloride, trichlorethylene, perchloroethylene, and para-dichlorobenzene, all of which are being addressed in the proposal, we do not think US EPA believes these compounds are safe. It is just the best they can do right now. Besides the water quality problem is the air quality problem. Publicly operated treatment works (POTWs) are required to comply with air quality regulations relating to cancer risk to neighbors. POTWs do not have authority to regulate products used by consumers, but the ARB does. We support the staff proposal to shorten the sell-through period, since there are readily available substitute products being marketed. Regarding consumer preference, we have experience with several POTWs banning the use of para-dichlorobenzene in port-a-potties, the small chemical toilets used at events. Para-dichlorobenzene in port-a-potties create hazardous waste. The port-a-potties are now working fine without para-dichlorobenzene. The substitute products we evaluated are safe in the water. Regarding the prohibition of the use of the other three chlorinated toxic air contaminants, we support that proposal as well. Like para-dichlorobenzene, the other three chlorinated compounds enter water treatment plants and then either enter the air causing a major component of the cancer risk associated with the plants, or is in the water released. Water is recycled because California's water supply is short. Drinking water limits apply. Some water treatment plants exceed drinking water standards for chlorinated compounds. While POTWs have been working on the problem for 15 years at water emission sources, such as dry cleaners, degreasers, film cleaners, and other commercial establishments, perchloroethylene persists as a water quality problem. Chlorinated compounds remain a problem because POTWs do not have authority to regulate chlorinated consumer products, which besides perchloroethylene, contain para-dichlorobenzene, methylene chloride, and trichloroethylene. For example, perchlorethylene electrical cleaners can be found at automotive supply stores. While ARB has banned perchloethylene in brake cleaners, perchloroethylene

electrical cleaner is available and people may, in practice, use it to clean brakes. One can of electrical cleaner pollutes eight million gallons of water. The staff proposal addresses this concern by banning perchloroethylene in electrical cleaners. (Tri-TAC-2)

40. **Comment:** We support the proposed ATCM and the proposed amendments to the California Consumer Products Regulations, because the proposal will bring cleaner air while also preserving and enhancing water quality. The proposal represents a true pollution solution, since less toxic ingredients will be substituted for toxic ingredients in consumer products. We encourage the ARB to use pollution prevention approaches in future rulemakings. However, the implementation dates should be shortened, because alternative products are readily available and widely used. The phase-out for para-dichlorobenzene products should be shortened to one year, and the phase-out for perchloroethylene, methylene chloride, and trichloroethylene should be shortened to the maximum extent possible. (Ludwig, SCP2C)

41. **Comment:** We support the staff proposal and appreciate staff's response to our earlier comment to shorten the time period for compliance. The proposal will benefit both air quality and water quality. (CCA)

42. **Comment:** We support the proposal, in particular the phase-out of chlorinated solvents in the seven product categories, and the accelerated phase-out schedule. (IRTA)

43. **Comment:** We support the staff proposal and shortened compliance schedules, especially for product categories with readily available substitute products. Consumer products are significant sources of VOCs, 80% of man-made VOCs in 2000, and even with ARB control measures, still 12% in 2010. Further reductions are needed, and we support maximum feasible VOC reductions by adopting the proposed amendments to the Consumer Products Regulation, for approximately 65% reduction by 2009. The amendments will also reduce toxic air contaminants. We also support adoption of the ATCM for para-dichlorobenzene. The prohibition of para-dichlorobenzene in toilet products and solid air fresheners is warranted since para-dichlorobenzene is a potential carcinogen, a California toxic air contaminant, a federal Hazardous Air Pollutant, and alternative PDCB-free products are available on the market. (NRDC)

44. **Comment:** For the most part, we support the May 7, 2004 proposal. However, the recently suggested changes for the 15-day comment period bring up two issues. We did not have a problem with the originally proposed phase-out schedule, but with an accelerated phase-out, there are problems with gasket remover (which is one of the adhesive removers), and graffiti remover. Both products contain predominantly methylene chloride. Right now we do not have alternatives, so we can not support the accelerated phase-out. However, we do support flexibility to work further with ARB staff on these issues. (Sherwin)

Agency Response to Comments 37 - 44: As requested by the commenters, the ARB accelerated the para-dichlorobenzene phase-out schedule by one year (see section 94509(o) of modified regulatory language). After further review with industry regarding the perchloroethylene, methylene chloride, and trichloroethylene prohibition schedule, the phase-out was also accelerated by one year for four product categories: Contact Adhesives, Electronic Cleaners, Footwear or Leather Care Products, and General Purpose Degreasers. For these categories, staff found after further investigation that alternative reformulation technologies are readily available and that an accelerated phase-out schedule was feasible.

The originally proposed (non-accelerated) phase-out schedule was retained for three product categories: Adhesive Removers, Electrical Cleaners, and Graffiti Removers. (see sections 94509(m) and (n) of modified regulatory language). Staff found that research and development efforts to develop alternatives in these three categories would take more time and that that the originally proposed prohibition date of December 31, 2006 was necessary.

ATCM for Para-dichlorobenzene

45. Comment: We now know there are several types of carcinogens, including mutagenic (or genotoxic) agents, cytotoxic agents, and mitogenic agents. We are very concerned about the first type, mutagens or genotoxic carcinogens, because no matter how low the exposure, there is always a risk. Even one molecule might produce a risk of cancer. There is no safe dose.

Worldwide, other organizational bodies do not consider PDCB a genotoxic carcinogen. In other words, they believe PDCB does not damage DNA, does not induce mutations, and does not break chromosomes. Instead, they believe PDCB causes cancer by cytotoxic or mitogenic processes. When protection is provided against these nongenotoxic effects, there is protection against cancer. Therefore, the use of a threshold level approach can protect against cancer. With para-dichlorobenzene, the cancers in the animal studies resulted because the high experimental dosages induced nongenotoxic effects, which in turn caused secondary effects -- the cancers. Humans never experience such high dosages.

ARB is out of line with the rest of the world. ARB is using a linear no-safe-level-of-exposure risk assessment model that works for genotoxic carcinogens, but does not work for para-dichlorobenzene, because it is not a genotoxic carcinogen. The threshold level approach used by ARB staff to assess the noncancer chronic risk shows human exposure to PDCB is substantially below

the noncancer threshold level. Therefore, the use of the noncancer threshold level would be sufficient to protect against cancer. (CPA-4)

Agency Response: We disagree. PDCB has been shown to bind to DNA and induce DNA and chromosome damage in human and rat cells. These data suggest that PDCB is a genotoxic carcinogen. Additional discussion of this issue can be found in Appendix A to this FSOR, the ARB's "Supplemental Analysis Regarding the Air Resources Board's Proposed Airborne Toxic Control Measure for *Para*-dichlorobenzene" (supplemental analysis) dated February 10, 2005. It should be noted that the commenter (CPA) did not submit any comments in response to the supplemental analysis, which was made available for public comment during the 15-day comment period for this rulemaking action.

46. Comment: The B6C3F1 mouse strain, that produced liver cancer with para-dichlorobenzene, is inherently prone to develop cancer. PDCB just forces the growth of those cancers. The ARB assumption of human indoor exposure to para-dichlorobenzene for 24 hours per day, 365 days per year, and 70 years inside houses, is not realistic. (CPA-4)

Agency Response: We disagree. As discussed in the supplemental analysis on page 5, the argument that the mouse strain tested is susceptible to cancer formation does not show the mouse-liver carcinogenicity data are not relevant to humans. Besides the ARB, the NTP and IARC also consider the liver tumor data from this strain of mice to be relevant to human cancer risk determinations. Furthermore, susceptibility to cancers varies widely within the human population. Thus, it is appropriate to use the more sensitive animal strains. For a conservative, health-protective risk evaluation, we consider an assumption of human exposure to para-dichlorobenzene for 24 hours per day, 365 days per year, and 70 years inside houses, to be reasonable and consistent with OEHHA established guidelines, as approved by the Scientific Review Panel on Toxic Air Contaminants.

47. Comment: On May 7, 2004, staff proposed to amend the California Consumer Products Regulations in order to reduce emissions of volatile organic compounds, as part of its effort to amend the State Implementation Plan ("SIP") for Ozone. On the same date, staff also proposed an airborne toxic control measure ("ATCM") to ban the use of the air freshener paradichlorobenzene ("PDCB"). This was the first time that staff had ever suggested that an ATCM be proposed. (CPA-1)

Agency Response: The commenter is incorrect. On December 16, 2003, at a public Consumer Products Working Group meeting staff first said that the proposal would effectively ban PDCB. Staff stated that the ARB would be using its toxics authority as well as its consumer products authority under Health and Safety Code section 41712. Staff's intention to prohibit PDCB in solid air

fresheners and toilet/urinal care products was reiterated at a public workshop on March 11, 2004. We also note that in comments received from the commenter, dated January 7, 2004, that they were aware of the ARB's intention to prohibit PDCB based on toxicity considerations.

48. Comment: The ATCM proposal was issued in direct violation of Health & Safety Code § 39665, which requires that the Executive Officer of the Board shall consult with affected sources and the interested public in preparing a report on the need and appropriate degree of regulation for a toxic air contaminant. (CPA-1)

Agency Response: We disagree. The proposal to effectively ban PDCB was discussed at public Consumer Products Working Group meetings and at a public workshop held on March 11, 2004. Pages II-8 and 9 of the ISOR describe the public process used to develop the amendments and the ATCM. In addition, see pages VII-148 of the ISOR regarding outreach efforts. Staff also consulted with stakeholders including the Publicly Owned Treatment Works and the air pollution control districts. Meetings were held with the commenter in which they aired their concerns over the proposal. Staff also consulted with manufacturers of solid air fresheners, marketers, distributors and private labelers and with the Office of Environmental Health Hazard Assessment for their expertise on the health effects of PDCB. The result of the work was the preparation and release of a "report on need for regulation" as Chapter VII of the ISOR, which was released on May 7, 2004, for a 45-day public review and comment. Staff believes that the process described above satisfies the requirements of Health and Safety Code section 39665.

49. Comment: The Health Risk and Needs Assessment Was Not Prepared in Consultation with Affected Sources and the Interested Public.

Belatedly mindful of the legal requirement that it consult with affected sources and the interested public before proposing an airborne toxic control measure, the staff has fabricated a history of consultation - a history that misrepresents reality. The Health Risk and Needs Assessment even identifies as a reference "ATCM Comments," which is described as "Comment letters received by ARB on the ATCM for Para-dichlorobenzene." This characterization misconstrues the purpose and contents of the comments. The "comment letters" referred to are simply comments filed by CPA and other parties on the initial staff proposal for 2004 consumer products regulation amendments. They are not, as characterized by staff, "Comment letters received by ARB on the ATCM for Paradichlorobenzene." Neither the Initial Staff Proposal nor the Second Draft Proposal contained a proposed airborne toxic control measure for PDCB. It was not until the publication of the Initial Statement of Reasons on May that anyone knew that the staff was proposing an ATCM.

In fact, CPA's comments complained that the staff was proposing to ban PDCB because of its toxicity as an air contaminant without following the process mandated by 39665. CPA knew that the staff could not legally ban PDCB because of toxicity without preparing the report described in § 39665, which it must prepare after appropriate consultation. The purpose of CPA's initial comments was to inform the staff that it appeared to be ignoring this legal requirement. The second set of CPA comments was just a copy of the original comments, with a notation that the staff had totally ignored the points made in the original comments.

Apparently staff took those comments to heart, at least after reading them the second time, because by the time the May 7 proposal was issued, staff finally realized that the law requires that it prepare the report mandated by the law, which staff calls the "Health Risk and Needs Assessment." Staff also tried to remedy the fact that it had failed to prepare such document "in consultation with affected sources and the interested public." Thus it drafted a section of its Health Risk and Needs Assessment entitled "Outreach Efforts," which states:

> As provided in HSC 39665(c), relevant comments on the ATCM received by the ARB on the proposed ATCM have been included in the administrative record. They are listed as a reference at the end of this Chapter (ATCM Comments) and are available from ARB Staff upon request for public review and comment.

Initial Statement of Reasons at VII-148-49. This statement is puzzling. As noted above, the only contents of the ATCM Comment file are comments on the draft consumer products proposal. CPA argued that the statutory process must be conducted before the Board could adopt a regulation limiting a toxic air contaminant. It is a fabrication to characterize those comments as "comments on the ATCM received by the ARB on the proposed ATCM." There were no comment on the ATCM before May 7 because there was no ATCM before May 7. And just as there were no comments on the ATCM, so also there was no consultation with affected sources or the interested public before the proposal was issued. Frankly, the staff violated § 39665 by not preparing its report in consultation with affected sources and the interested public and through the mischaracterizations described above is attempting to cover up that non-compliance. The Board should categorically reject the Health Risk and Needs Assessment and order the staff to prepare a new one in consultation with affected sources and the interested public, in compliance with the law.

Indeed, staff's failure to recognize its obligation to prepare a Health Risk and Needs Assessment process prior to the May proposal had a direct and detrimental effect on the adequacy of the Assessment document itself. It is curious that the document states "Outreach and public participation are important components of ARB's efforts to develop regulations." Clearly there was no public

participation in the development of the ATCM. Had staff recognized its obligation to notify the affected industry and commence a dialogue with the interested public, its Assessment document would presumably have presented the Board with a more accurate, less misleading, description of the regulatory status of PDCB at the federal level and around the world.

The staff may raise a concern that it will take too long to comply with the law, to prepare a compliant Health Risk and Needs Assessment, and still have time to effectuate the emission-reducing ban on PDCB to meet its emission reduction goals. However, the desire to reduce emissions is no justification for failure to comply with the law. Nor is it a justification for making a regulatory decision based on incomplete and bad science. It is absolutely critical that the Board direct its staff to comply with § 39665, and hopefully in the process the staff will include the information it omitted from the current version regarding the uniform application of good science and reasonable risk assessment extrapolation models to produce an accurate estimate of the health effects of PDCB use. (CPA-1)

Agency Response: This comment is addressed in the response to the previous two comments. Staff would like to add that the commenter is being rather disingenuous in claiming that no one knew that staff was proposing an ATCM for PDCB until May 7, 2004. The substance of staff's proposal—to effectively ban the use of PDCB-- was clearly presented at public meetings beginning in December 2003, as described above. The commenter knew that the proposed ban was based on the toxicity of PDCB. On January 7, 2004 and March 23, 2004 the commenter submitted voluminous comments in response to this proposal. These comments describe in great detail why PDCB should not be banned based on its toxicity. The commenter's basic point seems to be that the ARB staff did not use the words "Air Toxic Control Measure" to describe staff's proposal even though staff did clearly describe both the substance of the proposal and the fact that it was based on the ARB's toxics control authority. Given the commenter's extensive comments on the proposal and on the toxicity of PDCB, it is quite clear that they were "consulted" during the development of the ATCM in accordance with Health and Safety Code requirements.

50. Comment: Although staff had been developing its proposal to amend the SIP for several years, the proposed airborne toxic control measure ("ATCM") to ban PDCB was a new development - appearing to be an afterthought, added only after the Chlorobenzene Producers Association ("CPA") had pointed out in its comments on staff's proposal for regulatory changes that the Health & Safety Code requires a careful assessment process before a product can be banned as a toxic air contaminant. Perhaps because the ATCM was an afterthought, the legally mandated "report on the need and appropriate degree of regulation," which the law requires to be developed in consultation with affected sources and the interested public before a regulation is adopted to control a toxic air contaminant, is grossly inaccurate and incomplete. (CPA-1)

Agency Response: The response to the previous comment describes the careful development of the proposed ATCM and demonstrates that the ATCM was not an "afterthought." Staff also believes that all requirements of the Tanner Act have been met for the proposed ATCM, including the "consultation" requirement mentioned by the commenter (see the response to the previous comment.) In addition, the responses to the following comments describes in greater detail why the "report on the need and appropriate degree of regulation" meets the requirements of the Tanner Act.

51. Comment: The Health Risk and Needs Assessment (i.e., the mandated "report on the need and appropriate degree of regulation" required by State law) is fatally deficient and should be rewritten to comply with State law. Numerous risk management agencies both in the United States and all over the world have declined to impose regulatory controls on paradichlorobenzene. The agencies include the U.S. Environment Protection Agency, by the U.S. Consumer Product Safety Commission, by the Illinois Pollution Control Board, by the World Health Organization International Programme on Chemical Safety, by the Health and Environment Agencies of Canada, by the European Union, by the government of Australia, by the government of the Netherlands, by the health and environment Agency of the European Union and by the U.S.EPA Risk Assessment Forum.

All of these agencies uniformly have determined that paradichlorobenzene should not be regulated as posing a cancer risk to humans. Not a single federal or state regulatory agency in the United States or around the world has taken steps to ban the use of paradichlorobenzene on the basis of carcinogenicity.

The ISOR does not mention any of the risk assessments conducted by these other agencies, much less explain why staff presumably disagrees with them. Because of staff's failure to discuss any of these other risk assessments, the ISOR does not adequately comply with the requirements specified in Health and Safety Code section 39665 for preparing the "report on the need and appropriate degree of regulation" for paradichlorobenzene. If staff disagrees with the decisions made by all of these other bodies, staff should explain in their report why they are right and all of these other bodies are wrong. The health risk and needs assessment should be rewritten and submitted to the Scientific Review for scientific review, and the Board should defer any action on the ATCM until the requirements of State law are satisfied. (CPA-1)

Agency Response: Health and Safety Code section 39665 requires that before adopting an ATCM for a toxic air contaminant (TAC), ARB staff must prepare a report on the "need and appropriate degree of regulation" for the TAC (commonly referred to as a "health risk and needs assessment"). Staff did this for para-dichlorobenzene and included it in Chapter VII of the ISOR. There is no requirement in State law that this report must include a discussion of all other risk assessments conducted by various bodies throughout the world. There is thus

no basis for concluding that the ISOR is defective merely because it does not contain such a discussion.

While not legally required to do so, staff nonetheless decided that it was appropriate to explain why the ARB staff does not agree with other bodies that have declined to regulate para-dichlorobenzene. Staff produced an analysis entitled: "Supplemental Analysis Regarding the Air Resources Board's Proposed Airborne Toxic Control Measure for *Para*-dichlorobenzene," dated February 10, 2005 (Supplemental Analysis). The Supplemental Analysis describes the ARB's position and responds in detail to the issues raised by the commenter. The Supplemental Analysis was added to the rulemaking record and made available for public comment during the 15-day comment period for this rulemaking action (see the 15-day notice for this rulemaking action). This was done to insure that the public would have the opportunity to better understand why the ARB staff has reached a different conclusion than these other bodies, and to provide the public with an opportunity to comment on the ARB's Supplemental Analysis. The Supplemental Analysis is incorporated by reference as "Appendix A" to this FSOR. The Office of Environmental Health Hazard Assessment (OEHHA) has reviewed the Supplemental Analysis and considers the information on PDCB carcinogenicity and the evaluations of previous PDCB risk assessments, as discussed in the document, to be scientifically accurate and correct. The ARB received no other comments on the Supplemental Analysis during the 15-day comment period.

Regarding the commenter's suggestion that the health risk and needs assessment should be rewritten and submitted to the Scientific Review Panel for scientific review, this is not appropriate because: (1) staff's original assessment is adequate and meets the requirements of State law, and (2) under Californa's air toxics statutes (Health and Safety Code 39650 et seq.) the Scientific Review Panel does not have a role in making risk management decisions (i.e. ATCMs) for para-dichlorobenzene and other TACs. The role of the Scientific Review Panel is limited to the identification phase of the air toxics process, and the identification phase is not the subject of this rulemaking action. For all of these reasons, it is not appropriate to postpone final adoption of the ATCM.

52. <u>Comment</u>: Federal, International and Foreign Risk Management Decision Makers Have Determined that PDCB Should Not Be Regulated as Posing a Human Carcinogenic Risk.

The Health Risk and Needs Assessment for the proposed ATCM informs the Board that PDCB has been listed by IARC in category 2B and is a California Toxic Air Contaminant and a federal Hazardous Air Pollutant, but entirely ignores 17 years of scientific and regulatory developments involving PDCB. See Initial Statement of Reasons at VII-143. The IARC classification indicates merely that there is "sufficient evidence" of carcinogenicity in animals, which means that it has been shown to be carcinogenic in two or more species of animals. The

classification does not refer to the strength of the evidence or to the mechanisms involved the animal studies. Nor does it suggest anything as to the likelihood that the substance is carcinogenic to humans. The proposal also notes that PDCB was listed as a Hazardous Air Pollutant in the Clean Air Act Amendments of 1990. The genesis of PDCB on the HAP list, however, was its appearance on certain state lists of potentially toxic substances. The listing was not a regulatory decision from EPA reflecting evidence of the toxicity of the substance.

The Health Risk and Needs Assessment document also refers to recommendations of the U.S. Consumer Product Safety Commission and the US EPA regarding the use of PDCB for moth control. The misleading nature of these references, *id* at VII-143, should raise a red flag with the Board, however, as staff has completely omitted health-related regulatory decisions of these agencies regarding PDCB (see below).

What the Health Risk and Needs Assessment also fails to disclose is the fact that the scientific database regarding possible risk from PDCB is more fully developed than that of any other rodent carcinogen in history, and that on the basis of that exhaustive database, regulatory agencies around the world, when considering whether to regulate PDCB as posing a carcinogenic risk to humans, uniformly have determined that PDCB should not be regulated as posing a cancer risk to humans. Not a single federal or state regulatory agency in the United States nor a single national or international agency around the world has taken steps to ban the use of PDCB on the basis of carcinogenicity. If the Board takes the action that the staff has proposed, the California Air Resources Board would be the first. Yet the staff is asking the Board to ban PDCB while completely failing to provide highly relevant information to the Board.

Consider the following facts that have be completely omitted from the Health Risk and Needs Assessment:

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> As long ago as 1987, the U.S. EPA issued a final rule setting the maximum contaminant level goal ("MCLG") for PDCB under the Safe Drinking Water Act (42 U.S.C. § 300g). If PDCB had been regulated as a carcinogen, the law would have required EPA to set the MCLG at zero. However, after considering the same animal carcinogenicity data the Board is considering for PDCB, EPA decided not to regulate PDCB as a carcinogen, but rather adopted a MCLG for PDCB at 0.05 mg/l, based on other toxicity endpoints with an additional safety factor. EPA concluded that PDCB should be regulated on the basis of other health effects and not as a carcinogen. EPA determined that PDCB was only a possible carcinogen in category C. EPA's final decision, which discusses the limitations in the carcinogenicity data, is attached to these comments as Exhibit 1. That decision remains valid to this day.

In 1991, the U.S. Consumer Product Safety Commission, the federal agency responsible for administering the Federal Hazardous Substances Act, 15 U.S.C- § 1261, considered banning PDCB as a hazardous substance on the basis of carcinogenicity data. If the CPSC had regulated PDCB as a carcinogen, its sale as a space deodorizer and air freshener would have been rendered unlawful throughout the country at that time, and the matter before the Board would have been moot. After conducting a risk assessment on the basis of the same animal carcinogenicity that the Board is considering, the CPSC decided that PDCB should not be regulated as a hazardous substance by reason of carcinogenicity. In the words of the CPSC staff, "Although the estimated exposure and cancer risks from some of the common uses of PDCB as a space deodorant would be considered significant were this chemical carcinogenic to humans, it is the judgment of the staff that the scientific evidence is not adequate, at this time, to support a finding that PDCB is 'toxic' under the Federal Hazardous Substances Act by virtue of its carcinogenicity." Relevant excerpts of the CPSC "Briefing Package, Hazard Evaluation of Consumer Products Containing 1,4-Dichlorobenzene" is attached to these comments as Exhibit 2.

Similarly, the European Union decided, on the basis or a comprehensive risk assessment for PDCB, that the substance should be regulated on the basis of other toxicity endpoints and not carcinogenicity. The EU risk assessment states: "carcinogenic effects are not considered relevant to human." Relevant excerpts of the EU risk assessment is attached to these comments as Exhibit .3. *See* Ex. 3 at 95.

The World Health Organization's International Programme on Chemical Safety ("IPCS") in 1990 issued a report that addressed "the risks for human health and the environment from exposures to dichlorobenzenes..." After addressing the same carcinogenicity data that the Board is considering, the IPCS concluded that "non -occupationally exposed humans are exposed to levels of chlorobenzenes well below the derived TDIs, indicating that the anticipated health hazards for the general population from exposure to chlorobenzenes other than hexachlorobenzene are minimal." Relevant excerpts from the IPCS report "Environmental Health Criteria 128, Chlorobenzenes other than Hexachlorobenzene" are attached to these comments as Exhibit 4.

Only one other state has considered regulating PDCB as a toxic air contaminant on the basis of carcinogenicity – Illinois. In 1991, the Illinois Pollution Control Board considered the Illinois Environmental Protection Agency's listing of PDCB as a Toxic Air Contaminant by reason of carcinogenicity, based on the IARC classification of PDCB as a B2 possible carcinogen. The Pollution Control Board considered the distinction between the IARC 2B classification as shown in the Safe

Drinking Water Act regulation attached hereto as Exhibit 1. Because of the limited scope of the IARC classification decision, in comparison with the weight of the evidence EPA classification, the Illinois Pollution Control Board delisted PDCB from the list of Toxic Air Contaminants. A copy of the Illinois Pollution Control decision is attached hereto as Exhibit 5.

The Canadian Environmental Protection Act requires that the Canadian federal Ministers of the Environment and of the Health prepare and publish a Priority Substances List that identifies substances that may be harmful to the environment or constitute a danger to human health. The law also requires the Ministers to determine whether the substances are toxic to human health. Pursuant to that law, the Canadian Ministers published a Priority Substances List Assessment Report for 1, 4-Dichlorobenzene. Considering some of the same references as the ARB staff used, the Ministers estimated total indoor air exposure to PDCB based primarily on U.S. data. Their report summarized the same rodent carcinogenicity data as the Board is considering and concluded that PDCB should be classified as only "possibly carcinogenic" to humans. On this basis, as a non-genotoxic rodent carcinogen, the Canadian Ministers calculated a conservative tolerable daily intake, using an uncertainty factor to add a margin of safety, and concluded that PDCB does not pose a danger to human health and should be regulated on the basis of other toxicity endpoints. Relevant excerpts of the Canadian Priority Substances List is attached hereto as Exhibit 6.

In 2000, the Commonwealth of Australia issued Priority Existing Chemical Assessment Report No. 13, para-dichlorobenzene. The report contains an extensive discussion of carcinogenicity and gentoxicity data for PDCB. It concludes that both male rat kidney tumors and mouse liver tumors are not relevant to a human carcinogenicity risk assessment. (The details of the Australian scientific assessment are discussed below in the section on Good Science.) A copy of the Australian Priority Existing Chemical Assessment Report No. 13 is attached to these comments as Exhibit 7.

Not only does the staff's Health Risk and Needs Assessment fail even to mention any of these decisions of regulatory agencies whose job it is to assess and manage risk to humans, the information it does provide (the IARC classification and the listing of PDCB as a HAP and a TAC) is a completely different kind of information, not directly relevant to the risk management decision the Board is being asked to make. The IARC classification and the HAP and TAC lists are designed to identify potential hazards, not to assess the degree of human risk or to manage that risk. The IARC classification is simply a recitation of the fact that the substance was found to be carcinogenic in two or more species of animals. It specifically does not reflect the mechanism of tumor formation in the animals, as the above risk assessments do, nor does it say anything about whether PDCB is likely to pose a risk to humans. Similarly, the

Proposition 65 listing of PDCB simply reflects the fact that the substance was found to be carcinogenic in two or more species of laboratory animals. It does not say anything about the mechanism of toxicity or whether the substance is likely to pose a risk to humans. In fact, when PDCB was being considered by the state's experts regarding listing for Proposition 65, the expert panel expressly refused to consider evidence about whether the mechanism causing cancer in animals related in any way to humans, saying that its role was limited to assessing the existence of positive bioassays.

What the staff cites, then, are listing decisions that explicitly do not consider the likelihood that PDCB poses any risk to humans. More important than these lists of substances found to cause cancer in animals are the many regulatory decisions by agencies whose job is to evaluate the evidence to determine whether PDCB should be regulated to minimize the risk of carcinogenicity in humans. These decisions (some of which are referred to above) have been completely omitted by the staff, perhaps in part because the staff never consulted with affected sources and the interested public regarding an airborne toxic control measure, in clear violation of § 39665, and perhaps because the staff sees itself as an advocate for banning PDCB to achieve its emission reduction goals. These regulatory decisions and the science on which they were based, however, are particularly relevant to the issues before the Board. Staff should be directed to address these matters in a revised Health Risk and Needs Assessment. (CPA-1)

Agency Response: The numerous issues raised in the above comment are addressed at length in the ARB's Supplemental Analysis, which is included as Appendix A of this FSOR.

In addition, staff believes that it has prepared a complete and accurate "health risks and needs assessment report" in accordance with Health and Safety Code section 39665, using the best available science, using more recent risk assessment data and methodologies not considered by the commenter CPA, and with consultation with affected sources and interested public, as discussed in the ISOR.

CPA also questions the use of the linear approach for risk assessment extrapolation. CPA believes that a reference dose threshold with a safety factor should have been used. We disagree. The methodologies used were standard procedures that were developed by OEHHA and the cancer unit risk number and methodology was approved by the Scientific Review Panel on June 3, 1998. Additionally, it should be noted that the International Agency for Research on Cancer (IARC 1999) stated that supporting evidence for the relevance of PDCB animal carcinogenicity to human cancer risk includes data indicating that PDCB causes DNA damage in the liver and spleen of mice and weakly binds to DNA in the mouse liver. These data indicate that a linear non-threshold model should be

used to extrapolate to low-dose human cancer risk from animal PDCB carcinogenicity data and that the linear approach is appropriate.

53. Comment: The mechanism under which PDCB produced kidney tumors in male rats has been found to be not relevant to human risk.

The rodent bioassays that led EPA to classify PDCB as a category C "possible carcinogen" were performed by the National Toxicology Program in the late 1980's. The carcinogenic results included renal tumors in male rats and liver tumors in mice. All of the regulatory decisions summarized above (which, as noted, were omitted from the Health Risk and Needs Assessment) discuss the reasons that the mechanism of tumor formation in male rats in the NTP study is not relevant to humans. In fact the conclusion that the male rat kidney tumors in the NTP study are not relevant to human risk assessment was the subject of a comprehensive workshop of renowned scientists held under the auspices of the EPA Risk Assessment Forum in 1991, the results of which were reported in the publication "Alpha2U-Globulin: Association with Chemically Induced Renal Toxicity and Neoplasia in the Male Rat" ("Risk Assessment Forum, Report," a copy of which is attached to these comments as Exhibit 8) published by the Risk Assessment Forum.

These experts found that in certain bioassays kidney tumors in male rats were associated with the accumulation of a protein, alpha2u-globulin, which binds with the organic chemical being tested to form hyaline droplets in the kidney. These droplets then cause cell damage and cell replication, which indirectly increases the incidence of tumor formation. Because the protein alpha2u-globulin is limited to male rats (where it is apparently used in the rat's urine to mark its territory), and is not found in female rats, mice or humans, the consensus of scientists is that male rat tumors formed under these circumstances are not relevant to human risk assessment. In the words of the EPA Risk Assessment Forum Report:

> Male rat renal tubule tumors arising as a result of a process involving *a2u*-g accumulation do not contribute to the qualitative weight-of-evidence that a chemical poses a human carcinogenic hazard. Such tumors are not included in dose-response extrapolations for the estimation of human carcinogenic risk.

Risk Assessment Forum Report at 85.

On the basis of the broad scientific consensus reflected in this report, the following agencies have decided that the male rat kidney results from the NTP study should not be used to predict any human carcinogenic risk: the U.S. EPA (Exhibit 8), the U.S. Consumer Product Safety Commission (Exhibit 2), the European Union (Exhibit 3), the World Health Organization IPCS (Exhibit 4), the

government of Canada (Exhibit 6), the government of Australia (Exhibit 7), the government of the Netherlands (Exhibit 9).

Again, because industry was not consulted in the development of the Health Risk and Needs Assessment, and perhaps because staff sees itself as an advocate to achieve emissions reductions, this scientific consensus was ignored as if it did not exist. However, the importance of these scientific issues for the Board's decision in this matter, and the inconsistency between what the staff is advocating and the decisions by other agencies, suggests that the scientific issues involving male rate kidney tumors should be referred to the Scientific Advisory Panel. (CPA-1)

Agency Response: This comment is addressed at length in the ISOR (page VII-159) and in the Supplemental Analysis, in which staff agrees that the male rat kidney tumor data are inconclusive with regard to potential human cancer (although it is possible that more recent data on the genotoxicity of PDCB may require a reevaluation of this position in the future). It is important to note, however, that the rat-kidney data have no bearing on the issue of the mouse-liver carcinogenicity data, which OEHHA considers relevant to humans (see page VII-159 of the ISOR). The issue of the mouse-liver carcinogenicity data is addressed in the response to the following comment.

54. Comment: The mouse liver tumors have also been found not likely to be indicative of a human risk.

In a detailed assessment on which the European Union determination regarding PDCB was based, mouse liver tumors from several studies were carefully evaluated, together with data showing PDCB should not be treated as a geno-toxic substance, and found not likely to be indicative of a human risk. A similar detailed assessment was performed by the Australian government and reached the same conclusion. A careful review of genotoxicity data and of the mechanism of liver toxicity in mice has led these risk managers to conclude that the mouse liver tumor were not generated via a genotoxic mode of action that could be relevant to humans. On the contrary, sound evidence shows that these tumors were induced by a non-genotoxic mode of action, in which some minimal level of injury in the mice was a necessary precursor before tumors developed. The consequence of this conclusion is that a linear risk extrapolation model should not be used for risk assessment purposes (which would predict some risk to humans from as little as one molecule of PDCB), and that a more appropriate extrapolation model is the use of other toxicity endpoints, plus a safety factor, to predict a safe level of exposure. Using a threshold safety factor model for extrapolation from laboratory animal to humans there is an exposure threshold below which there is no human risk, and the regulatory decision can be made that only exposures above the threshold, reduced by applying a margin of safety, should be prevented.

This assessment is important because if PDCB induces mouse liver tumors by interacting with mouse DNA, causing a genetic change in the mouse liver cells, then that same mechanism might generate tumors in humans, regardless of the extent of exposure. But the overwhelming weight of evidence (which has been accepted by all these regulatory agencies described above) is that when mice are exposed to PDCB, their livers increase in weight (and there is a large increase in cell proliferation) and at the same time there is no increase in serum liver enzymes. This clearly, together with the large volume of negative genotoxicity studies on PDCB, indicates that PDCB induces liver tumors in mice as a result of a non-genotoxic, mitogenic mechanism. This is the conclusion reached by risk assessment regulatory agencies, which use a reference dose threshold safety factor model to predict there is no likely carcinogenic risk to humans. Using a reference dose threshold safety factor sets a reference dose based on other toxicity endpoints, divided by a safety factor, to determine that no carcinogenic risk exists below the reference dose, which is then set even lower after application or the safety factor. On this basis, the agencies cited above decided that PDCB should not be banned or restricted, because human exposure was sufficiently below a safe level.

Clearly, the gross disparity between the clear consensus on risk reached by regulatory agencies all over the world, on the one hand, and that advocated by the Board's staff, on the other, mandate that the Board obtain sound scientific review of staff's proposal. It is imperative that the Board base its decision on sound science. In order to ensure that the decision-making process here is based on sound science - and not simply on a desire to achieve emission reductions - the Health Risk and Needs Assessment on which the regulatory action is to be based must at least acknowledge the contrary decisions of regulatory agencies around the world. To ensure sound science, the Board's Scientific Review Panel should weigh in on these important issues. (CPA-1)

Agency Response: Staff does not agree. The issues raised by the commenter on mouse liver tumors are addressed in the ISOR (page VII-159), in the Supplemental Analysis, and in the responses to the previous comments. As discussed in the Supplemental Analysis, none of the other organizations mentioned by the commenter, including the European Union and Australia, provided any data to show the mouse-liver carcinogenicity data are not valid or are not relevant to humans. Also, none of the other organizations provided any justification for any "threshold level" of exposure below which there is no cancer risk. PDCB has been shown to bind to DNA and induce DNA and chromosome damage in human and rat cells. These data suggest that PDCB is genotoxic. California considers PDCB to be a carcinogen and staff has not seen any credible data that show otherwise.

55. Comment: Staff's Estimate of Risks from PDCB Use Is Not Supported by the Evidence.

Just as the staff's needs assessment is seriously defective because it was not prepared in consultation with affected sources and the interested public, so also the document is defective in applying unrealistic risk extrapolation models to expected exposure. Staff predicts that the use of PDCB in air fresheners causes approximately 9 cancers per million, based on exposures 20 meters downwind from the perimeter of a wastewater dechlorination process area, and approximately 145 cancers per million based on indoor exposures (net of cancers caused by exposure to moth-control uses of PDCB). These estimates are entirely unrealistic and should be rejected as the health basis for the proposed ban.

First, as noted above, all other regulatory bodies that have considered the issue have rejected the linear risk extrapolation model on which the staff's risk numbers were based. To make a regulatory decision banning a product on the basis of this risk assessment extrapolation would be unreasonable and unscientific (and would fly in the face of every other regulatory body that has addressed the issues).

Second, the assumptions underlying the extrapolated risk numbers based on exposure are also unrealistic. The projected cancer impact of 9 cancers per million was based on exposures at 20 meters downwind from a wastewater treatment plant, assuming exposure 24 hours per day and days per week over the course of a 70-year lifespan. Such assumptions are, frankly, ridiculous. Similarly, the projected cancer impact of 145 excess cancers per million from indoor exposure assumes exposure to 1 ug/m3 for 24 hours per day and 7 days per week over a 70-year lifespan. Again, this assumption lacks any relationship with reality.

Moreover, the estimate for indoor exposure is particularly unstable, as the only indoor exposure information in the record does not differentiate between indoor exposures caused by air freshener use and indoor exposures caused by moth control use. Since the proposal does not include moth control use, staff has simply taken 60% of the total PDCB indoor exposure based on an industry publication regarding the split between air freshener use and pesticidal use. There is actually no data regarding consumer exposure to air fresheners.

If staff actually were to consult with the industry as the statute requires, it might be able to obtain more realistic, and less objectionable, figures for exposure. (CPA-1)

Agency Response: Staff does not agree. As discussed in the ISOR and in the Supplemental Analysis, PDCB is a carcinogen with no safe threshold level. The exposure estimates in the ISOR were determined using the latest health risk assessment guidelines from OEHHA and the latest computer modeling techniques in accordance with U.S. EPA criteria. The standard procedure for a conservative, health-protective analysis includes worst-case exposure

assumptions of 24-hours per day, 7-days per week, over a 70-year lifespan. ARB staff is well aware that these assumptions are not intended to approximate typical "real world" exposure levels. They are standard health-protective assumptions used in performing risk assessments, and they are designed to allow one risk assessment to be compared to another using the same set of standardized criteria. These assumptions and risk assessment procedures are consistent with generally accepted scientific practices employed by U.S. EPA, OEHHA, and many other agencies.

Operators of Publicly Owned Treatment Works (POTW) have also estimated the health risks in the vicinity of their water treatment plants, and are concerned about the substantial contribution of PDCB to those risks. They have provided comments regarding the air exposure carcinogenic risks and support a prohibition of PDCB in toilet/urinal care products. The POTW experience and data are consistent with our analysis. Regarding mothballs and indoor exposure, even if the assumed 40 percent contribution of mothballs is disregarded, the remaining PDCB health risks from indoor exposure due to solid air fresheners and toilet/urinal care products are still of concern.

56. Comment: When the PDCB exemption from the VOC reduction regulation for consumer products was first granted in 1990, the Board explained that there were no effective substitutes for PDCB, and therefore concluded that the exemption would ensure that consumers should not be deprived of their choice for bathroom deodorizing. The current proposal takes the position that there are now several substitutes, so that PDCB can now be eliminated from the marketplace.

However, this goal is accomplished only as a result of the arbitrary combination of the deodorizing function with the cleaning function of consumer products, which can enable the staff to find substitutes for PDCB in scented soap products. This would, if proper, enable the Board to eliminate PDCB, the only subliming solid, while appearing to comply with the requirement that it not eliminate any product form.

The combination of deodorizers and cleansers is, however, arbitrary and improper. (CPA-1)

57. Comment: The Proposal Violates the Prohibition on Elimination of a Product Form.

CPA believes that the proposal reflects a serious misunderstanding regarding the intent behind § 41712(c), which prohibited the elimination of a product form. The proposal should be rejected as violating the statutory prohibition.

PDCB is a unique product form - as no other such products are subliming solids. Indeed that form is particularly suited for bathroom deodorizing, since it slowly sublimes from a solid to gaseous state, without dissolving in water. The unique status of PDCB, and its continuing lack of viable substitutes, is demonstrated by consumer preference, which is a good indicator of effectiveness of the product form. Although the Initial Statement of Reasons suggests that consumer preference can be ignored as part of technology forcing, this argument ignores the fact that the governing statute under which regulations are being promulgated specifically rejected technology forcing, at the same time as it prohibited elimination of a product form. (CPA-1)

58. Comment: They *(the proposed amendments to the consumer products regulations)* will have the effect of eliminating a form of a product (the only subliming solid air freshener, which is preferred by consumers above all substitutes) in violation of Health Safely Code § 41712(c). (CPA-1)

59. Comment: The Proposed Elimination of PDCB Air Fresheners Would Violate Both the Letter and the Spirit of H&S Code § 41712(c). (CPA-1)

Although the proposed elimination of PDCB air fresheners is characterized primarily as an airborne toxic control measure in the proposal, staff has proposed a complicated series of regulatory and definitional changes that will have the effect of eliminating the only subliming solid air freshener, in violation of Health and Safety Code §41712(c). (CPA-1)

60. Comment: Among the changes being proposed is the combination of the toilet cleaning function with the bathroom deodorizing- function into a single category. This complex array of machinations appears designed to identify soap-based solid products in the same category as PDCB, so as to enable the Board to ban PDCB without running afoul of the prohibition on eliminating a product form under § 41712. (CPA-1)

Agency Response to Comments No. 56 - 60: This air toxic control measure will not eliminate a product form. Paradiclorobenzene toilet blocks are "solids," and so are substitute products that do not contain this chemical. A "subliming solid" is not a separate product form. The adjective "subliming" simply refers to one characteristic of the chemical material (i.e., PDCB) used to formulate this particular solid.

This ARB's position is consistent with an opinion issued by the Office of the California Attorney General on the meaning of the term "product form" in Health and Safety Code section 41712 (84 Ops. Cal. Atty. Gen. 49, Opinion No. 00-1201, March 23, 2001). This opinion concludes that the term "product form" refers to: "… the shape and structure of the product, such as a liquid, solid, powder, gel, crystal, aerosol, or pump spray, as distinguished from the material of which it is composed." This opinion supports the ARB's position that the

proposed amendments do not eliminate a product form, since they simply ban the use of one particular chemical (i.e., PDCB) and not all “solids.”

In addition, the prohibition on eliminating a product form applies only to VOC control measures for consumer products adopted pursuant to Health and Safety Code section 41712. It does not apply to air toxic control measures (ATCMs) adopted pursuant to Health and Safety Code section 39665 et seq. These sections do not include any restrictions on eliminating a product form. The authority to adopt the proposed ATCM for PDCB derives from Health and Safety Code section 39665 et seq. So even if the proposed ATCM did result in the elimination of a product form (which it does not), this would be legally permissible under the ARB’s authority to adopt ATCMs.

Staff’s proposal was not motivated by a desire to evade State law requirements. As discussed above, the prohibition on eliminating a product form applies only to VOC control measures for consumer products adopted pursuant to Health and Safety Code section 41712. It does not apply to air toxic control measures (ATCMs) adopted pursuant to Health and Safety Code section 39665 et seq.

The proposed regulatory action will not eliminate a product form and was not designed to evade State law requirements. In addition, staff does not agree that the proposed category of “Toilet/Urinal Care Product” arbitrarily combines “cleaning” and “deodorizing” products into a single category. Staff believes that the “Toilet/Urinal Care Product” category is appropriately defined and there is no meaningful way to distinguish “cleaning” products from “deodorizing” products within this category.

61. **Comment:** Anticipating the argument that consumer demand demonstrates that it is not feasible to interchange these products, the Initial Statement of Reasons contends that the agency has the authority to "force" the development of technology, citing the case of *International Harvester v. Ruckelshause, 478 F.* 2d 615 (D.C. Cir. 1973), which upheld the use of technology-forcing regulations by EPA. This power to force the development of products and to force the interchangeability of various types of consumer products, according to the Initial Statement of Reasons, enables the Board to ignore consumer preference in assessing what product substitution (and thus product elimination) is commercially feasible. Unfortunately, this rationale does not apply to a regulation issued under § 41712.

The 1996 change in the Health & Safety Code added the prohibition on regulatory changes that eliminate a product form. That same legislation required that regulations be issued only if the product changes result are technologically feasibility. The purpose of the 1996 legislation was twofold: First the legislation would require that changes be feasible. Second, the legislation would prohibit regulations that require the elimination of any existing product form. The

purposes of these two provisions were explained in the Legislative Counsel's Digest of the bill, which states:

> The bill would require that, on the date that the regulation is adopted, the technology necessary to manufacture a product exists and is available to manufacturers, and would prohibit the regulations from requiring the elimination of any existing product form.

Taken together, these two provisions render *International Harvester* inapplicable to regulations under § 41712. Effectively, the legislature mandated that technology be available at the time the regulations are issued. This fact undermines the technology forcing interpretation that the staff is using to reject consumer preference as an indicator of whether a substitute exists. Consumer preference would indicate that scented soap is not truly a substitute for PDCB; it simply doesn't work. Staff's suggestion that the *international Harvester* decision enables it to ignore this important consumer preference and "force" the development of a market for such "substitutes" as scented soap in lieu of PDCB is thus plainly wrong in light of the 1996 legislation. (CPA-1)

Agency Response*:* The commenter has misinterpreted the law in asserting that the ARB does not have the authority to adopt technology-forcing regulations. The commenter's argument is based on their interpretation of 1996 legislation that amended Health and Safety Code section 41712 (AB 1849: Sher, Stats.1996, ch. 766). While AB 1849 prohibited the ARB from adopting any regulation pursuant to section 41712 that "… requires the elimination of a product form," it did not prohibit the ARB from adopting technology-forcing regulations. The Legislative Counsel's Digest language quoted by the commenter appears in an early version of AB 1849 that was not enacted by the Legislature. This version contains amendments made by the Senate on September 12, 1995, and includes the following proposed language:

> "(5) "Technologically and commercially feasible" means that on the date that the regulation is adopted, the technology necessary to manufacture a compliant consumer product exists and is available to manufacturers of consumer products."

This proposed language would indeed have restricted the ARB's ability to adopt technology-forcing regulations for consumer products. The language was subsequently deleted, however, and neither it nor any similar language appears in the final version of AB 1849 enacted by the Legislature. Moreover, the Legislative Counsel's Digest for the final version of AB 1849 does not contain the language quoted by the commenter, and states instead that: "The bill would prohibit a regulation from being adopted which requires the elimination of a product form." Simply put, AB 1849 did not do what the commenter says it did.

The commenter's argument is therefore invalid because it is predicated on an incorrect interpretation of AB 1849.

Finally, the proposed ATCM for PDCB is not a technology-forcing regulation. A technology-forcing regulation is a regulation that requires a standard to be met in the future that cannot be met at the present time (i.e., because the technology does not yet exist). The adoption of the future-effective standard "forces" the regulated community to develop technology that does not currently exist. With regard to the proposed ATCM, substitute products for PDCB already exist and are widely available. Since the technology already exists to produce these products--and they are currently being produced and sold by a number of manufacturers--the proposed ATCM does not "force" technology.

62. Comment: In addition, the Initial Statement of Reasons claims, but fails to demonstrate, an actual evaluation of comparative efficacy of PDCB substitutes. (CPA-1)

63. Comment: The Record Does Not Reflect any Actual Comparative Testing of Air Fresheners.

The Initial Statement of Reasons asserts that non-PDCB solid air fresheners, which clean the bowl as well as deodorize, are equally effective. Suggestions that the staff has actually tested products to find them equally effective are highly questionable. There is no evidence in the record that would support that assertion, and it is directly contradicted by the marketplace. Companies that actually sell the competing products know that the soap products are not as effective as PDCB, and also know that consumer reaction is highly favorable to PDCB.

CPA knows from the marketplace that PDCB products are highly effective, because consumer prefer them at least 17 to 1 over non-PDCB products, so much so that national retailers, such as Walgreens, are discontinuing the sales of those non-PDCB products. It is inappropriate to force consumers to accept the ineffective soap-based products. The far better approach is to respect the marketplace and thereby to respect consumers. (CPA-1)

64. Comment: There is no evidence that the comparative efficacy of substitutes for PDCB was actually evaluated by staff, and it is unreasonable for staff to reject consumer preference for PDCB. (CPA-1)

65. Comment: The leading role played by PDCB in the air freshener marketplace is established primarily by consumers, who prefer PDCB and buy it in quantities many times more than other products because it is more effective than other products. Thus consumers purchase PDCB products much more often than they purchase scented soap products. Consumer demand show that PDCB substitutes are not as effective and are not truly substitutes. (CPA-1)

Agency Response to Comments 62 - 65: The effectiveness of "odor masking" products is subjective since the human sense of smell is involved. Staff did not test any of products for their effect on human smell, but the commenter also did not provide any testing data to substantiate its claim that non-PDCB products are less effective.

However, there are good reasons to believe that alternative products are as effective or more effective than PDCB products. The alternative products actually clean away odor-causing material, while the PDCB products only attempt to mask odors. Products that clean inherently provide deodorizing benefits. This means the alternative products decrease the level of "masking" needed. In addition, alternative products typically contain about 3 percent fragrance. The fragrances contained in these kind of consumer products are typically very potent and very little fragrance is needed to mask odors. Non-PDCB products are readily available and are currently being sold and used. Both PDCB and non-PDCB products are marketed together, make similar claims, and last the same amount of time. Data from the ARB's consumer products survey show that non-PDCB products comprise at least 16 percent of the market share of in-toilet bowl/urinal products, which is not consistent with the commenter's claim that consumers prefer PDCD products "… at least 17 to 1 over non-PDCB products."

Finally, the commenter has not provided documentation on what marketers of competing products believe. Therefore, we consider the comment "companies that actually sell the competing products know that the soap product are not as effective as PDCB" to be the opinion of the commenter, rather than a substantiated fact.

66. Comment: Health and Safety Code section 39666(c) states that an air toxic control measure (ATCM) shall be designed to reduce emissions to the lowest level achievable through the application of best available control technology (BACT) or a more effective control method, unless the ARB determines, based on an assessment of risk, that an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health. Therefore the ARB has a legal obligation to consider whether something short of a ban on paradiclorobenzene will still adequately protect public heath. The ISOR does not address this issue and therefore fails to meet the requirements of the law. (CPA-2)

Agency Response: The commenter seems to believe that before the ARB can adopt an ATCM the ARB must first make a formal determination whether "… an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health." This is an incorrect interpretation of the law. Health and Safety Code section 39666(c) requires that the ATCM must reduce emissions to the lowest level achievable through the application of BACT (or a more effective control method) unless the ARB makes the

determination identified by the commenter. The statute does not require the ARB to make this determination; it simply gives the ARB the discretion to adopt an "alternative level of emission reduction" (i.e., a less stringent alternative) if the ARB makes this determination.

This interpretation of section 39666(c) is set forth in a recent decision by the Third District Court of Appeal. In *Coalition for Reasonable Regulation of Naturally Occurring Substances v. California Air Resources Bd.*, 122 Cal.App.4th 1249, 1262 (October 1, 2004), the Court states:

> "Since the Board is authorized to reduce the risk of asbestos emissions to zero, and has done so in the 2000 ATCM, it was unnecessary for it to exercise its discretion to assess the risk of "an *alternative* [or lower] level of emission reduction is adequate or necessary to prevent an endangerment of public health." (§ 39666, subd. (c); italics added.) [FN9]"
>
> FN9 "Subdivision (c), directs the reduction of harmful emissions "to the lowest level achievable" "*unless* " the Board "*determines* " otherwise. (Italics added.) The "unless" clause is a dependent clause; it provides for an "alternative," i.e. a higher level of risk, only if the "board [so] determines" in consideration of the factors in section 39665 that an "alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health." This places the discretion to make that "determin[ation]" in the Board. These provisions have no application to this case since the Board made no such determination."

In addition, there is no evidence in the record to justify the ARB's adoption of an alternative level of emission reduction. The only "alternative" offered by the commenter is that the ARB adopt no controls whatsoever, based on the commenter's belief that paradiclorobenzene toilet/urinal blocks and solid air fresheners do not pose a health risk to humans. The ARB believes that doing nothing—which is essentially the commenter's proposal—does not constitute an "alternative level of emission reduction" within the meaning of Health and Safety Code section 39666(c). A reasonable interpretation of this language is that it refers to some level of emission reduction that is less stringent than the "lowest level achievable through the application of best available control technology" (which is zero paradiclorobenzene emissions in the case of toilet/urinal blocks and solid air fresheners). No commenter has proposed the adoption of some "alternative level of emission reduction" between "no controls" and a "total ban" on paradiclorobenzene in these products. In addition, the commenter has offered no data or evidence--and the ARB staff is aware of none--that would justify setting such an alternative level. In other words, no data or evidence exists that would allow the ARB to determine that "… an alternative level of emission reduction is adequate or necessary to prevent an endangerment of public health."

67. Comment: We summarize the scientific evidence showing that para-dichlorobenzene is a carcinogen. National Toxicology Program (NTP) data in 1987 showed kidney tumors and leukemia in male rats. The 1987 NTP data also showed thyroid tumors, adrenal gland tumors, and liver tumors, in both male and female mice. Additionally, there is evidence of deoxyribonucleic acid (DNA) damage to mouse liver and spleen, and that para-dichlorobenzene weakly binds to DNA in mouse liver. The data support a determination that para-dichlorobenzene is a non-threshold carcinogen, and it is appropriate to extrapolate the animal carcinogenic data to estimate cancer risks to humans. The NTP mouse liver data have already been used as the carcinogenic basis for drinking water standards in California, since 1988. For air quality related health risk assessments, OEHHA developed and the Scientific Review Panel for TACs approved, a cancer risk potency factor, available since 1989, for para-dichlorobenzene. (OEHHA-1)

Agency Response: Comment noted.

Aerosol Coating Products Regulation

68. Comment: Footwear or Leather Care Product -- CSPA accepts the recent determination that many of the products originally proposed for regulation in these categories should instead be considered already regulated as Vinyl/Fabric/Leather/Polycarbonate Coatings in the Aerosol Coatings Regulation. Manufacturers of these products need to be advised of this finding and given time to comply. We therefore urge that an enforcement advisory be issued that provides companies manufacturing these products until at least January 1, 2005, to comply with all of the provisions of that regulation, including the special labeling provisions. (CSPA-1)

Agency Response: This comment does not relate to the proposed amendments but instead relates to the regulatory definitions currently set forth in the Aerosol Coating Products Regulation. The ARB will evaluate and if appropriate will send out an advisory regarding these categories in the future. Potential enforcement actions against products that are already subject to the aerosol coating regulation will be evaluated on a case-by-case basis. It should also be noted that the proposed definition of “Footwear or Leather Care Product” states that it does not include any “Vinyl/Fabric/Leather/Polycarbonate Coatings” as defined in the Aerosol Coatings Regulation.

69. Comment: Section 94521(a) - Aerosol Coating Product Regulation -- The new staff interpretation of the definition of "Vinyl/Fabric/Leather/Polycarbonate Coating" under this section (to include footwear and leather protectants) would also result in Fabric Protectants being included in that category. We do not believe that it is appropriate or necessary to

have products covered by the provisions of both regulations. We therefore suggest that ARB clarify that Fabric Protectants are subject only to the provisions of the Aerosol Coating Product Regulation, and set a date for compliance with that regulation's labeling provisions. This clarification would require revisions to the main consumer products regulation, as well as a separate Enforcement Advisory, or coverage in the Enforcement Advisory issued regarding Footwear and Leather Care Products. (CSPA-1)

Agency Response: This comment relates to the existing regulations and not to the proposed amendments. All fabric protectants have been subject to the provisions of the Consumer Products Regulation (see section 94508(a)(51)) since before January 1995 when the first VOC limit for this category became effective. The Aerosol Coating Products Regulation was adopted in March 1995 and was not intended to regulate fabric protectants already subject to the Consumer Products Regulation, but was intended to regulate other types of aerosol coatings applied on vinyl, fabric, leather, and polycarbonate substrates. Staff does not believe that any clarification is necessary to the existing regulations.

70. Comment: On March 24, 2004, in my comments to ARB regarding the Second Staff Proposals regarding the determination that certain products containing resin, such as "protectants" and “waterproofers” are “aerosol coating products". I requested "that a temporary waiver to the existing coatings regulation be granted to these products so that the labeling requirements of Section 94524(b) can be implemented. The waiver should be for at least 12 months from the effective date of the regulation." In the Initial Statement of Reasons, on page VI-108, the response to this proposal indicates that ARB will consider this and would "allow a timeframe for re-labeling to comply with the Aerosol Coating Regulation." This would not be a desirable solution to the situation.

Re-labeling of existing products is virtually impossible to achieve because this effort would require product recalls and this action would result in extreme costs being incurred. Because it is known that these types of products, primarily the ones that were involved in the surveying efforts, are in fact compliant with the reactivity standard, there is little to be gained by ARB in requiring an after the fact action involving re-labeling. I request that ARB consider developing an enforcement advisory that notifies the affected industry that the products produced after 1/1/05 must comply with the labeling requirements of Section 94524(b)(1)(B) and that the filing requirements of Section 94542(b)(4) must be met by 1/1/05. (Hydrosol)

Agency Response: Like the previous two comments, this comment relates to the existing regulations and not to the proposed amendments. The Aerosol Coating Products Regulation was adopted in March 1995. Products that were not subject to VOC limits under the consumer products regulation and meet

the definition of an aerosol coating category should already comply with the requirements specified in the Aerosol Coating Products Regulation. As stated on page VI-108 of the ISOR, the ARB will evaluate and if appropriate will send out an advisory regarding these categories in the future.

2. COMMENTS ON SPECIFIC CATEGORIES

Adhesive Remover

71. **Comment:** Two very small subcategories of Adhesive Removers cannot meet the limits proposed: (1) products used exclusively to remove labels; and (2) products used exclusively in vehicle refinishing. Therefore, CSPA urges ARB to modify the proposed definitions as follows:

§ 94508(a)(2)	"Adhesive Remover" does not include products that remove adhesives intended for use on humans or animals, or used exclusively during "Vehicle Refinishing." "Vehicle Refinishing" means the activities and procedures associated with collision and body repair. "Vehicle Refinishing" does not include interior or engine applications.
§ 94508(a)(2)(C)	"General Purpose Adhesive Remover" [...] includes but is not limited to [...] ~~pressure sensitive adhesives;~~ [...] ~~stickers; decals;~~ [...] "General Purpose Adhesive Remover" does not include "Floor or Wall Covering Adhesive **(?? Remover ??)**" or "Label Remover."
§ 94508(a)(2)(E) [New]	"Label Remover" means any Adhesive Remover used exclusively to remove labels and stickers and/or to dissolve or remove pressure sensitive adhesive residue from a variety of substrates without affecting the substrate. "Label and Sticker Adhesive Remover" does not include "Specialty Adhesive Remover," "General Purpose Adhesive Remover," or "Wallpaper and Flooring Adhesive Remover."

(CPSA-1)

72. **Comment:** The ARB is proposing four subcategories of adhesive removers: Floor or Wall Covering Adhesive Remover, General Purpose Adhesive Remover, Gasket or Thread Locking Adhesive Remover, and Specialty Adhesive Remover, with VOC limits of 5 percent (5%), 20 percent (20%), 50 percent (50%), and 70 percent (70%), respectively. CSPA supports this

subcategorization, if exclusions are provided for "Label Removers" and products used exclusively for vehicle refinishing (see Section I of these comments concerning necessary revisions to the definition of certain product categories). These two small subcategories of adhesive removers cannot be reformulated to meet the VOC limits proposed, and those limits are therefore not technologically feasible. If these products are to be regulated, it will be necessary to assess the potential to set reactivity-based limits based on Maximum Incremental Reactivity (MIR), similar to the Aerosol Coating Products Regulation. (CPSA-1)

73. **Comment:** The VOC limits proposed for the other Adhesive Removers may be difficult to achieve for some types of products or forms, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of these limits to determine whether the VOC limits meet the requisite statutory standard of commercial and technological feasibility for all products and forms. (CPSA-1)

74. **Comment:** The reformulation options noted for General Purpose Adhesive Remover (primarily LVPs) are not feasible for Label Removers. CSPA also disagrees with the assessment that a reactivity-based (MIR) limit providing equal reductions would be infeasible; revised assessments have shown that the MIR 1.2 limit that CSPA proposed for Label Removers could provide an equal percent reduction in ozone formation potential to the 20% mass-based limit. Products labeled exclusively as Label Removers are manufactured by seven companies, two of which are CSPA members, and five of which do not belong to any national trade associations. (CPSA-1)

75. **Comment:** Adhesive Remover -- In general, ASPA supports the sub-categories and VOC limits being proposed by the ARB for this category of products (i.e. Wallpaper and Flooring Adhesive Remover, General Purpose Adhesive Remover, and Specialty Adhesive Remover, with VOC limits of 5 percent (5%), 20 percent (20%), 50 percent (50%), and 70 percent (70%), respectively). However, ASPA requests that the ARB provide an exclusion is provided for products used exclusively in vehicle refinishing. This very small category of adhesive remover products cannot be reformulated to meet the proposed VOC limits. However, if the ARB feels that these products must be regulated, it will be necessary to determine the potential to set reactivity-based limit based on Maximum Incremental Reactivity (MIR), similar to the Aerosol Coating Products Regulation. (ASPA-1)

76. **Comment:** With regard to this broad subcategory, the Air Resources Board has recently informed industry that it intends to continue discussions about this product category, along with several other "multi-purpose solvent products" during CONS-2. In the meantime, however, this proposal, as presented will remain part of the rulemaking package. NPCA objects to this treatment of this

category in light of the fact that it will be re-examined in the next rulemaking exercise. (NPCA-1)

77. Comment: Specifically with regard to the Specialty Adhesive Remover, industry and ARB staff members were continuing discussions up until the day that it was announced that these categories would be "on hold." In fact, industry members engaged in these discussions believed that a favorable compromise was imminent. The ARB's decision to "put a hold" on these solvent categories served to stifle the logical conclusion of these discussions. (NPCA-1)

78. Comment: If the ARB believes that it is prudent to wait to address these solvent categories, it should delete them from this rulemaking package, rather than let the "latest proposal" survive, only to become the adopted standard. NPCA objects to the ARB's decision to leave standards for these categories in this proposal. (NPCA-1)

Agency Response to Comments 71 - 78: Staff assessed the Adhesive Remover category and realized that subcategorization was necessary to allow for removal of various adhesives while achieving the maximum feasible VOC reduction. Through this process, staff proposed and the Board approved, VOC mass limits that are feasible. Staff disagrees that the limits for General Purpose Adhesive Remover and Specialty Adhesive Remover are not feasible for products designed to remove labels and for vehicle refinishing. “Pressure sensitive” adhesives, such as used in labels and stickers, can be removed, as described in the staff report, with a combination of active VOC solvents along with LVP-VOCs and/or exempt solvents such as acetone. Because a feasible mass limit could be set, there was not a need to consider a reactivity-based limit. While there may be products designed specifically as “Label Removers,” numerous other general use products also make claims to remove labels and can meet the adopted VOC limits. We also note that a large majority of the adhesive remover industry expressed support of the 20 percent limit for General Purpose Adhesive Removers with the understanding that “Label Removers” would be included.

A comparatively high VOC limit of 70 percent was set for specialty adhesive remover because staff realized the technical challenges involved with removal of certain adhesives used in vehicle refinishing. Replacing small amounts of VOC solvents with exempt compounds or hydrocarbon or methyl ester LVP-VOCs were determined to be viable reformulation options. Because staff determined that mass limits are feasible, and provided a greater ozone benefit, there was no need to evaluate limits based on VOC reactivity.

As described above, staff set technologically feasible limits for all categories of Adhesive Removers. Despite many discussions with industry, staff acknowledges that not everyone agreed that the limits for products to remove labels or products used in vehicle refinishing were feasible. Some of these

products make additional contaminant removal claims beyond being suitable for adhesive removal. In light of this, Staff did agree to evaluate these products as part of the evaluation for multi-purpose solvents, which is not yet a regulated category. Moreover, staff has committed to a technology review prior to the limits becoming effective to further ensure feasibility of the VOC limits (see response to Comment No. 140 - 144). Staff believes that delaying adoption of these limits is not necessary, however, because adequate evidence currently exists that the limits are feasible within the time frames provided.

Air Freshener

79. Comment: In view of the proposed modification to the Most Restricted Limit provision, the definition for Air Freshener should specifically exclude Fabric Fresheners. In addition, the ARB should remove any potential ambiguity by adding the following sentence to:

> [...] The inclusion of fragrance in a product, or referencing this on product labels or in promotional materials, does not constitute an air freshening claim.

(CSPA-1)

Agency Response: The suggested changes are not necessary. Current product labels generally indicate that an "air freshener" product is intended for the air in a room or other space, while a "fabric refresher" product is intended for fabric. In the unlikely event that a product did claim to be both an “air freshener” and a “fabric refreshner,” this is exactly the kind of situation in which the “Most Restrictive Limit” provision is intended to apply. With regard to the suggested language about “inclusion of fragrance,” the language is unnecessary because (1) it is obvious that “mere inclusion of fragrance,” by itself, is not an air freshener claim, and (2) the phrase “referencing this on product labels or in promotional materials” is so vague and ambiguous that it could seriously interfere with rational case-by-case product determination decisions.

Anti-Static Product

80. Comment: The VOC limits proposed for Anti-Static Products may be very difficult to achieve for some types of products or forms, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective dates of each of these two limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-1)

Agency Response: Comment noted. Staff acknowledged the reformulation challenge, particularly for aerosol products and provided a higher VOC limit (80 percent) and allowed manufacturers additional time, until December 31, 2008, for aerosol anti-static products to comply. Staff has committed to a technology review prior to the limits becoming effective to further ensure feasibility of the VOC limits. limits (see response to Comment No. 140 - 144)

Contact Adhesive

81. Comment: We support the proposals relating to Contact Adhesives - General Purpose and Special Purpose and appreciate the staff's willingness to work diligently through the technical issues that necessitated the subgrouping of this category. (NPCA-1)

Agency Response: Comment noted.

82. Comment: Contact Adhesive Definitions and Limits -- We concur with the most recent proposal that subcategorizes contact adhesives into Contact Adhesives-General Purpose and Contact Adhesive - Special Purpose with the respective limits of 55 percent and 80 percent. With regard to the subcategorized definitions, we believe that with the staff's assent to the inclusion of the reference to "high pressure laminate" substrates in the specialized subcategory, both definitions accurately reflect each category. (ASC-1)

Agency Response: Comment noted.

83. Comment: The ARB is proposing a lower VOC limit for the subcategory of General Purpose Contact Adhesives. CSPA supports the additional comments and positions on these products provided in separate comments by the National Paint and Coatings Association and the Adhesives and Sealants Council. (CSPA-1)

Agency Response: Comment noted. The comments from the National Paint and Coatings Association and the Adhesives and Sealants Council were in support of staff's proposal for contact adhesives.

Electronic and Electrical Cleaner

84. **Comment:** CSPA members are willing to work toward achieving and maintaining the VOC limits proposed for Electrical Cleaners (45%) and Electronic Cleaners (75%), as well as the prohibition on chlorinated solvents in cleaners other than Energized Electrical Cleaners. The VOC limits proposed may be very difficult to achieve for some types of products or forms, but CSPA members have expressed a willingness to work toward meeting these VOC limits. (CSPA-1)

85. **Comment:** Some commercial-use Electrical Cleaners and Electronic Cleaners currently use VOC exempt materials such as HCFC-141b, but the manufacture of this material has been banned, and its use is being phased out. Compliance with these proposed new VOC limits will therefore require replacing this solvent with other exempt solvents. Several hydrofluorocarbons (HFCS) and hydrofluoroethers (HFEs) that could be used have been exempted as VOCs by the U.S. Environmental Protection Agency (EPA), but not by the ARB. Our industry's ability to comply with this regulation will require ARB to act to exempt these HFC and HFE solvents. We therefore request that ARB conduct a technology review for the Electronic Cleaner category one year prior to the effective date of this standard to determine whether the replacement formulations for HCFC-141b will be able to meet this new VOC limit, and determine whether other problems have surfaced that might prevent compliance with these limits. (CSPA-1)

Agency Response to Comments No. 84 - 85: During rule development staff realized that the former "Electronic Cleaner" category should be subdivided to account for effective removal of various contaminants. This allowed limits to be set that are feasible and achieve the maximum feasible reduction. Recognizing the challenge of electronic cleaning, staff set a relatively high VOC limit (75 percent) and notes that there was a large complying marketshare (over 50 percent). For Energized Electrical Cleaners, staff realized that non-flammable solvents are required when electrical equipment can only be cleaned while the equipment is operating. No reformulation options were found to be feasible for this category, so no VOC limit was set. As for Electrical Cleaners, while the complying marketshare was low (6.5 percent) staff identified crossover technologies from similar previously regulated categories that could be employed.

Thus, while the limits may be challenging for some products, staff believes that feasible limits were set that are achievable without the use of exempt chlorinated solvents. Staff set the limits for these categories based on knowledge that HCFC-141b would be phased out and that some replacement compounds exempted by U.S. EPA were considered VOCs in California. The limits proposed are feasible based on complying marketshares (6.5 percent for electrical and 52 percent for electronic) and based on other feasible alternatives

that can be used to reformulate. In other words, the limits are feasible regardless of whether the ARB ultimately determines it is appropriate to exempt these compounds from the VOC definition. Finally, staff has committed to a technology review prior to the limits becoming effective to further ensure feasibility of the VOC limits (see response to Comment No. 140 - 144).

86. Comment: The data provided for Electronic Cleaner and Electrical Cleaner appear inconsistent. It is stated that these products have a sales-weighted-average VOC content of 25% and 51.2%. and sales of 934 and 884 pounds/day, respectively. Even if this is adjusted by 10% for market coverage, this would equal VOC emissions of 259 and 502 pounds/day, respectively, while VOC emissions are given as 482 and 660 pounds/day, respectively, in Table VI-7. If these differences are due to considerations involving changes in the types of exempted fluorinated or chlorinated solvents that may be used in these products, this should be noted. (CSPA-1)

Agency Response: ARB staff acknowledges that there are errors in the Table VI-7 on page VI-87 of the ISOR. Category sales for Electronic Cleaner should be 922 pounds/day rather than the reported 934 pounds per day. Also, category sales for Electrical Cleaner should be 1,288 pounds/day rather than the reported 884 pounds per day. These changes will increase the Total Category Sales from 2,150 pounds/day to 2,542 pounds/day. The staff report states that the Electronic Cleaner products have a sales-weighted average VOC of 52.2 percent, which is correct. It should be noted that none of these errors affect staff's determination that the proposed limits are feasible. For completeness, a revised Table VI-7 is provided below.

Table VI-7
Electronic and Electrical Cleaner*

Product Form	Number of Products	Category Sales (lbs/day) **	Adjusted VOC Emissions (lbs/day)**
Electronic Cleaner	106	922	482
Electrical Cleaner	88	1,288	660
Energized Electrical Cleaner	14	332	82
Total	**208**	**2,542**	**1,224**

* Based on 2001 Consumer and Commercial Products Survey. (ARB, 2001)

** Survey emissions adjusted for complete market coverage (see Chapter IV, Emissions). The market coverage for the Electronic & Electrical Cleaner products was 10%; staff believes the 2001 Survey covered 90% of the market.

Fabric Refresher

87. Comment: The definition of Fabric Refresher also needs to be modified in view of the modified Most Restrictive Limit provision, and to clarify that laundry products and sanitizers are excluded. (CSPA-1)

Agency Response: Staff agrees and the definition of "fabric refresher" was modified to exclude "non-laundered fabric" and soft household surface sanitizers registered under FIFRA.

Graffiti Remover

88. Comment: The VOC limits proposed for Graffiti Removers will be very difficult to achieve for some types of products or forms, especially with the elimination of chlorinated solvents, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of each of these limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-1)

Agency Response: Comment noted. The limits proposed are technologically and commercially feasible based on complying marketshares, and can be achieved without the use of chlorinated solvents. Staff has also committed to a technology review prior to the limits becoming effective to further ensure feasibility of the VOC limits (see response to Comment No. 140 - 144).

89. Comment: The paragraph in the ISOR relating to research by the City of Portland states that the study found "non-toxic" non-VOC alternatives for Graffiti Removers, but then describes the non-VOC alternatives as "ranging from dibasic ester-based products, acetone-based products, and glycol ether-based products." Although we are not familiar with this study, it is important to note that none of these chemicals or classes of chemicals can be considered "non-toxic" by any conceivable definition of the term. (CSPA-1)

Agency Response: The commenter is mischaracterizing what is stated in the ISOR. The ISOR does not state that these ingredients were without hazards. The report concluded that the use of hazardous materials did not relate to the overall product effectiveness.

90. Comment: The data provided for Graffiti Removers in Table VI-13 also appear inconsistent. Product sales data, sales-weighted-average VOC content, and market coverage data imply that adjusted VOC emissions should be 91 and 33 pounds/day, respectively, for aerosol and nonaerosol forms, while emissions are instead given as 170 and 220 pounds/day, respectively. In addition, the

sales-weighted-average MIR of 0.165 tons ozone per year per ton product would result of an OFP of 15.14 tons ozone per year, not 151.4. Once again, if some or all of these discrepancies relate to handling of the exempted solvents, this should be noted. (CSPA-1)

Agency Response: The data reported in Table VI-13 are correct. However, text further describing data for Graffiti Removers was incorrect. The incorrect data, however, have no bearing on the commercial and technological feasibility of the VOC limits established. The corrected data are as follows: The aerosol products in this category had a sales-weighted average VOC (SWA-VOC) content of 56.7 percent, by weight, with a SWA-MIR (Maximum Incremental Reactivity) value of 1.8 tons ozone per ton product. The Ozone Forming Potential (OFP) of these aerosols was 98.6 tons ozone per year. The non-aerosols had an SWA-VOC of 70.8 percent, an SWA-MIR of 2.142 tons ozone per ton product, and an OFP of 121.6 tons ozone per year.

Shaving Gel

91. Comment: The level of technical scrutiny provided in the ARB staff's Initial Statement of Reasons demonstrates the level of complexity in formulating shaving gels. We think it is clear from the extensive evaluation of these products undertaken by the ARB staff, that it is far too early to determine whether formulation to the 4% VOC standard is technologically and commercially feasible in 2009; however, it is very clear that such a standard could not be achieved at any earlier date.

Because of the uncertainties involved in developing a product with less than the maximum 7% VOC that will be allowed as of December 31, 2006, we strongly concur in the ARB's assessment that a formal evaluation of the technological and cost factors involved in further reformulations be conducted prior to the implementation of more stringent standards.

The ARB staff's recommendations state that it will conduct a "formal technical and cost assessment ... no later than January 1, 2009." We support this, and will work with affected companies to ensure that the industry is prepared to participate in a feasibility evaluation at the earliest possible date. An early assessment of the feasibility of the 4% VOC standard scheduled for December 31, 2009 is essential to allow sufficient time for the ARB to take further action if necessary, and for the industry to comply with the ARB's decision in a timely manner. (CTFA-1)

Agency Response: Staff has demonstrated technological and commercial feasibility in meeting the Shaving Gel Tier 1 and Tier II standards. In the staff report, there are several reformulation methods described such as

reduction in levels of VOC propellants, utilization of compressed gas/air propellants, use of VOC/non-VOC propellant blends, and use of self-pressurized containers. In addition, reported in the 2001 Survey was a Tier II compliant product, and staff is aware of several other Tier II compliant products that appeared on the market since the 2001 Survey.

However, staff does recognize that for some manufacturers, significant changes to the manufacturing process will be necessary in order meet the Tier II standard. Staff will be performing a technology assessment before the Tier II standard effective date to ensure utilization of technologies, such as those identified in the staff report, develops as expected.

92. **Comment:** The technical review is a very important element to us of our ability to support this regulation. There are some difficult obstacles to be overcome. We intend to comply with the seven percent standard in 2006. And with that -- with the understanding that we have that review coming up in 2008, we will commit to making every effort to meet the 2009 deadline with that four percent standard. (CTFA-2)

Agency Response: The response to comment 91 is incorporated herein. Comments noted. At least one year prior to the Tier II effective date, staff is committed to performing a technology assessment of manufacturers progress in meeting the 4 percent VOC limit.

93. **Comment:** Shaving Gels Tier 1. The Gillette Company believes that the limit is achievable for full size (7 oz.) and bonus ounce units (8.4 oz.) but significant hurdles exist especially with trial size units (2.5 oz.). Limitations in currently installed gassing equipment and on-time gas fill check systems make the small amount of hydrocarbon driving propellant allowed by the 7% VOC rule to be very difficult to consistently fill for trial size units at the required filling line speeds. (Gillette)

Agency Response: Concerning reformulation of shaving gel “trial sizes”, manufacturers that continue producing these smaller-sized containers may have to make some changes to their product manufacturing lines. It is a business decision as to whether the cost involved to fill these small sizes is worth making these changes. However, the inability to fill a small size does not negate the commercial and technological feasibility of the limits, as we note general support from industry of the 7 percent limit.

94. **Comment:** Shaving Gels Tier 2. The second tier effectively eliminates the use of hydrocarbon driving propellants. The Air Resources Board Staff report suggests three potential solutions to replace the hydrocarbon driving propellant.

1 . Use of HFC-152a as a driving propellant. The emissive use of hydrofluorocarbons as aerosol propellants is being questioned due to the global

warming potential of this class of gasses. Regulators in EU are sufficiently concerned that the use of hydrofluorocarbons as an aerosol propellant is already banned in some nations and is likely to banned from use in most aerosol application over the entire EU. It should be noted that Air Resources Board has petitioned for authority to regulate the use of hydrofluorocarbons in non-emissive automotive use under the authority of the Federal Clean Air Act.

2. Use of compressed gases as driving propellants. Compressed gas barrier package systems lose internal pressure during use of the product resulting in non-uniform dispensing properties of the shaving gel over the life of the unit. It should be noted that use of compressed air rather than a hydrocarbon propellant would be a considerable cost savings and thus would be readily adopted in the extremely competitive market place if it provided a commercial and technical alternative to hydrocarbons.

3. Use of mechanical systems. Specially mentioned in the Staff report is the Exxel-Atmos system that was used by The Gillette Company as a dispenser of shaving gels in the late 1990s. The product proved not to be commercially viable and was removed from the marketplace.

The Gillette Company does not consider these options to achieve a 4% VOC product to be viable at the present point in time. Less than 0.1% percent of the surveyed products met this 4% VOC limit. The technical review may ultimately indicate the 4% VOC limit is not technically and commercially feasible. (Gillette)

Agency Response: Related to the option of using HFC-152 as a driving propellant, we are aware that some manufacturers will not opt to use HFC-152a blends as mentioned in the staff report. Other potential VOC reduction strategies are listed in the staff report.

Concerning the use of compressed air, there are shaving gels using this technology that are available today in California. In addition, compressed air shaving gels have been sold for several years in European countries. Thus the issue of pressure loss has been solved by some manufacturers. As also described on page VI-124 of the staff report, there are technologies available that can be utilized to minimize or compensate for pressure drops in the barrier pack system (i.e. valve, stem, actuator technologies).

Concerning mechanical systems, one of which is the ATMOS system, several shaving gels have been and are available on the market that use this system, indicating that it is a low-VOC alternative that some companies have chosen to utilize for their shaving gels, prior to ARB regulation of this category.

The response to comment 91 is incorporated herein. While staff found the limits to be commercially and technologically feasible, especially by the 2009

timeframe to meet the Tier II limit, in consideration of the reformulation challenges some manufacturers will face, staff will perform a detailed technical assessment of manufacturers' progress to further ensure feasibility.

95. **Comment:** SCJ supports the proposed 7% VOC limit for shave gels effective December 31, 2006. SCJ withholds support the proposed 4% limit effective December 31, 2009. At the present time we are not confident that a commercially and technologically feasible product will be developed within the proposed timeframe. SCJ will continue research and development to meet this aggressive target. But because of the uncertainty associated with the proposed 4% limit SCJ appreciates the ARB's commitment to a detailed further technical assessment well prior to the 2009 effective date. This technical assessment will be critical to determining whether industry is capable of producing a 4% product at prices comparable to today's most widely-used shave products. (SCJ)

Agency Response: Comment noted with regard to the 4 percent limit. The response to comment 91 is incorporated herein. While staff found both the 7 and 4 percent limits feasible, a further technology assessment will be conducted prior to the 4 percent standard becoming effective.

Wood Cleaner

96. **Comment:** These VOC limits will be difficult to achieve for some types of wood cleaners, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of these limits to determine whether the standards have proven to be infeasible for some products or forms. (CSPA-1)

Agency Response: Comment noted. While there is no complying marketshare for aerosol wood cleaners, staff identified cross-over technologies from a similar category, Furniture Maintenance Products, that can be employed in this category. The complying marketshare for liquid products is 90 percent. Thus the limits are feasible. However, staff has also committed to a technology review prior to the limits becoming effective to further ensure feasibility of the VOC limits (see response to Comment No. 140 - 144).

97. **Comment:** The definition of Wood Cleaner also needs to be modified in view of the modified Most Restrictive Limit provision, to exclude Floor Wax or Polish. We recommend the following:

> 94508(a)(150) [..] "Wood Cleaner" does not include [...] "Floor Wax or Polish," [...]

(CSPA-1)

Agency Response: Staff agrees and the definition was modified accordingly.

3. OTHER COMMENTS

Economic Impact

98. Comment: Table I in the Executive Summary inaccurately implies that the 15 categories of products listed are the only products impacted by the proposed amendments. There are several amendments to provisions in this rule that would have very significant impacts on virtually all consumer products and consumer product manufacturers. These amendments include modifications to the Most Restricted Limit, Product Dating, and Sell-Through provisions. In addition, the chlorinated solvents provision affects General Purpose Degreasers. Since these modifications affect significantly more products and companies, the costs associated with these rule modifications could be very significant. (CSPA-1)

Agency Response: The intent of Table I was to indicate the categories for which VOC limits would be set. Staff acknowledges that many other products will have to be evaluated for compliance based on other proposals. The Executive Summary introduces the proposal. As a summary table regarding new VOC limits and new reporting requirements, it is not possible for Table 1 to show everything being proposed. Summary Point 3, starting on page ES-9, summarizes the amendments relating to the Most Restrictive Limit, Product Date Coding, Reporting Requirements, Sell-Through Notification, Definitions, Test Methods, and Other Minor Changes. Staff believes that the major costs of the amendments will be for product reformulation to decrease product VOC content to comply with new VOC limits. Staff believes other costs, notably administrative costs mentioned, to be much lower. As discussed on pages VIII-203 and VIII-204 of the ISOR, for example, the cost of label changes were considered, and staff believes most label changes will be made at a time when the label is concurrently changed for some other reason, such as for marketing purposes.

99. Comment: When assessing an industry where companies range in size from less than one million dollars to many billions of dollars in sales, each selling a unique mix of products to a unique mix of markets, economic impact assessments that assume that every company is "average" are meaningless. It is especially problematic to measure impacts on specific companies based on the ratio of average industry costs to average industry return-on-owners-equity. (CSPA-1)

Agency Response: Staff agrees with the commentator that the law of averages does not apply to every company. To conduct economic impact assessment along the line suggested by the commentator, however, requires access to the financial data for every affected company. Such data often are not available publicly and most affected businesses are unwilling to provide such data even on a confidential basis. In addition, as a practical matter it is impossible to conduct customized financial analyses on individual companies when the regulation affects hundreds of companies. It certainly has been the ARB's policy to use the data provided by the industry in its analysis of the impact of the regulations. These data are normally supplemented with the publicly available data. When the industry data are not available, the ARB staff relies on the publicly available data.

100. Comment: The assignment of NAICS codes to various products (in Table VIII-I) appears to be randomly allocated between manufacturer-sector codes and wholesaler/retailer-sector codes. In reality, all of these product categories are manufactured by companies in a manufacturing sector (3000 series) and distributed and sold by companies in the wholesaler/retailer sectors (4000 series). Responsible parties for consumer products are usually manufacturers, but may also sometimes be wholesalers or retailers. (CSPA-1)

Agency Response: NAICS codes have been listed based on survey information provided by responsible parties; they are based on survey data. As we described in the ISOR, the focus of this analysis was on company types that are most affected by the proposed measures. Therefore, staff used the primary NAICS code reported for each category.

101. Comment: This cost and economic impact assessment is based on the inaccurate assumption that the only costs are related to reformulating products to meet new VOC limits. It appears that no effort was made to estimate the many other costs and impacts of these regulatory modifications, including:

- The retrospective costs incurred by more than 400 companies reporting approximately 6,300 products in the 2001 Survey. We believe that a conservative estimate of the costs to those companies completing the survey might range from $500,000 to $ 1,000,000.

- The costs associated with the Most Restricted Limit modification, which will require every consumer products manufacturer to review the labeling for every consumer product currently manufactured to determine whether the product might be subject to a new categorization with a lower VOC limit, and revise labels as needed for compliance. This could present costs and impacts to more than 1,000 companies and more than 50,000 products. Costs to industry for this could total many millions of dollars.

- The costs associated with the new Sell-Through Notification provision, which will require all companies selling any regulated products to establish compliance systems to monitor the manufacture date and compliance status of all products stored and shipped to assure that notifications are triggered where appropriate. This requirement impacts many thousands of manufacturers and distributors of consumer products, and could present total costs of hundreds of thousands of dollars.

- The costs associated with manufacturers that change their date coding system and/or comply with the annual reporting requirements for date codes, and comply with the revised requirements for date code visibility. This requirement also impacts all consumer product companies and all regulated consumer products, and depending an what compliance mechanisms are chosen, could require recurring annual costs of hundreds of thousands of dollars.

- The costs associated with various other labeling and reporting requirements for specific categories of products, including labeling of subcategory/limits and reporting annual usage of chlorinated solvents.

(CSPA-1)

Agency Response: We believe that the costs for these changes will not be significant for most companies, and that the commenter has greatly overestimated the potential costs. For example, the most restrictive limit provisions will not result in any costs for most products because the claims on the principal display panel match the representations on the remainder of the container. Companies have also been provided additional time to review their claims as part of their normal label review process or business practice. For the limited number of products that this change will effect, manufacturers also have the option to change their label claims, leave their labels alone as long as the product comply with the most restrictive limit, or reformulate their products to meet the lowest limit. We cannot estimate which option companies will choose, but we assume that they will choose the least expensive option. The most restrictive clause has been part of the consumer products regulation since 1990, so most manufacturers should be aware that the claims they make on their product labels determine which category and VOC limit the product will be subject to. This change to the most restrictive limit requirement is consistent with the aerosol coatings regulation and is consistent with the original consumer product regulation language which was changed prior to the Board hearing for the Phase 2 amendments.

Regarding the 2001 survey, it is not appropriate to include the 2001 survey costs as a cost of the proposed amendments. Surveys are authorized by the preexisting regulations and are routinely conducted by the ARB staff, independent of the proposed amendments.

We do not believe that the costs associated with the sell-through notification will be significant. As mentioned on page V-50 of the ISOR, this provision should not place an undue administrative burden on most companies because the majority of products are sold well before the final six months of the sell-through period, and many companies which do sell products within the final six months already notify their purchasers about the end of the sell-through period. Manufacturers can also minimize their notifications and the associated cost by not manufacturing excess amounts of product that may take up to three years to sell.

We do not believe that the costs associated with the changes to the date code requirements will be significantly different that the costs associated with the current system of maintaining accurate date-code explanations for manufacturers and ARB enforcement staff. Manufacturers have a choice of using a standard code that requires no annual reporting, or to use the system they currently employ and simply file an explanation of the code with the ARB every year. This latter option is a minimal burden that should impose no significant costs, since all it really involves is sending a letter to the ARB once each year.

To elaborate further, as part of the ISOR analysis staff assumed that there are various plant process changes and other costs, including re-labeling of products. Relabeling costs were already reflected in the economic analysis where reformulating is required. Staff included the estimated labeling costs specific to Special Purpose Contact Adhesives, as it is the only category where all of the products in the category would not be required to reformulate, but will be required to re-label.

Another proposed change to the regulation that may cause manufacturers to re-label their products would be that manufacturers of Adhesive Removers, Contact Adhesives, Electronic Cleaners, and Electrical Cleaners and Energized Electronic Cleaners must label their products as to subcategories. Costs could be incurred for Energized Electrical Cleaners for new reporting requirements. In the past these costs have been estimated to be about $300 per company per year.

Finally, staff did take into account the cost of the all the proposed amendments when conducting its overall cost analysis. For example, staff included costs for personnel, product development, prototyping, product testing, label modifications, registrations fees, manufacturing equipment, and marketing studies.

102. <u>Comment</u>: ARB's cost effectiveness assessment concludes that the VOC reductions to be attained through this rule will cost $2.40 per pound, for a total of $10 million per year. (This cost was discounted over a ten year period, so ARB's assessment actually finds a total cost of $100 million attributable to this

rule over the next ten years.) While this is in itself a significant cost, we believe that ARB's assessment underestimates by more than a factor of ten the actual costs attributable to this proposed rule. Most of this underestimation is due to four factors:

- ARB continues to calculate recurring costs (e.g., higher ingredient or packaging costs) based on the products shipped to California; consumer products are distributed nationwide, however, and actual costs are therefore eight times higher than the cost for California sales alone.

- Most of the sample formulations upon which ARB based its low (or even negative) estimates of recurring costs are formulations that would not be effective, and would therefore not be commercially feasible; in the real marketplace, companies cannot sell cheaper, ineffective, "watered-down" products that do not function for the tasks for which consumers purchase these products.

- ARB has underestimated the nonrecurring (e.g., one-time research and development) costs for these products, and also uses an unrealistic timeframe (ten years) considering that the proposed rule requires compliance in two to four years.

- ARB has not even attempted to estimate and include in its assessment many of the major costs imposed by the proposed regulation, including past costs to complete the 2001 Survey, and future costs to comply with Most Restrictive Limit, Product Coding, Sell-Through Notification, and various reporting requirements.

Accurate and reliable cost effectiveness analyses provide an important policy tool for ARB. In our comments on Volume 11, we will comment further on the inadequacy of the cost effectiveness analyses in this ISOR. (CSPA-1)

103. Comment: The Council supports comments submitted separately by the Consumer Specialty Products Association (CSPA). In particular, the Council supports CSPA's concern that ARB's estimates of recurring costs are based on product formulations that would not be effective and therefore would not be commercially feasible. Products that are not effective for their intended purposes will not be accepted in the marketplace, and should not be considered technologically or commercially feasible. (ACC)

Agency Response to Comments No. 102 - 103: Staff does not agree that the costs of the proposed amendments were underestimated. Staff used current raw material costs contained in the Chemical Market Reporter to estimate raw material costs. Sample formulations used in the analysis were shared with industry prior to conducting the analysis and very few comments were received on these formulations. Staff does not agree that these formulations are

infeasible or would result in ineffective products because the example formula's were based on products reported by manufacturers in the 2001 survey.

Non-recurring costs were assigned similarly as to what was done in virtually every other consumer products rulemaking since 1990. The methodologies employed were also the same or very similar to those in other consumer products rulemakings. Staff has many years of experience in conducting these analyses, and this experience indicates that accurate cost estimates have resulted from these methodologies in the past.

The commenter argues that since products are generally marketed nationwide, we should account for the cost of marketing reformulated products nationwide, but only account for the emission reductions achieved in California. The ARB believes it is appropriate to either use the cost for national production divided by the national emission reductions or, equivalently, use the California-apportioned (by population) cost divided by the California-apportioned emission reductions. This is a comment that industry has made on most consumer products rulemakings since 1990, and the ARB's response has been the same. The methodology for estimating cost-effectiveness in this rulemaking is consistent with the methodology used in ARB's past consumer products rulemakings.

The remaining issues raised by the commenter are addressed in the response to the previous comment.

104. **Comment:** While CSPA is not objecting to the proposed regulation of solid Air Fresheners and Toilet/Urinal Care products, it is important that accurate cost effectiveness assessments be made for all regulatory proposals. There are apparent discrepancies in the data provided in this section and the costs and VOC cost-effectiveness data also provided for reformulated solid Air Fresheners and Toilet/Urinal Care products. These products are concluded to have increases in per unit costs as a result of this regulation of 5 cents and 3 cents respectively, and respective cost effectiveness of $3.20 and $0.69 per pound VOC reduced. Yet the data provided on average prices and emission reductions for Toilet/Urinal Care products show cost increases of $3.00-$3.50 per pound of product between the old and new products. In addition, this method of calculation assumes that manufacturers will make this change only in California, while continuing to market the old products in all other states, an unlikely occurrence. If this change is done nationwide, costs would be eight times higher while emission reductions in California would be unchanged; actual cost effectiveness would be $24-$28 per pound.

Agency Response: Apparent discripancies are due to the different ways products are classified for different calculations. Chapter VII, pages 165-166, pertains to costs associated with the para-dichlorobenzene products, and addresses these solid products used as air fresheners for rooms, as well as

toilet/urinal care products, all of which will be non-complying. However, the category of Toilet/Urinal Care Products includes many non-para-dichlorobenzene products, of which many already comply, but does not include any solid air freshener used for rooms. Within the Toilet/Urinal Care Products category, the para-dichlorobenzene products contribute approximately 93 percent of the VOC emissions, but make up only about 9 percent of the sales by weight. The non-para-dichlorobenzene products are expected to provide far less reduction of VOC emissions, compared with the para-dichlorobenzene products. The non-para-dichlorobenzene, non-complying products, affect the average cost-effectiveness of the overall Toilet/Urinal Care Products category.

Regarding nationwide costs, it is the discretion of each company to decide its marketing strategy and which products are to be marketed outside California. The ARB has no VOC requirement regarding products marketed outside California. We disagree with using reformulation cost data assumed for the entire nation, and dividing only by the emission reduction benefits in California to determine cost-effectiveness.

105. Comment: In the paragraphs below, we will point out a few of the many errors, both random and systematic, that make these data unreliable for use in estimating recurring costs for products to be reformulated to comply with this proposed regulation.

Adhesive Remover-General Purpose Non-aerosol: This analysis predicts a $0.17 reduction in ingredient costs per pound of product, obtained largely through replacing d-limonene and glycol ethers with water, dibasic esters and alcohol. This reduction was calculated using inaccurate costs of $1.25/pound for d-limonene and $ 1.42 for glycol ethers in the compliant product, while actual costs for these ingredients range from $0.58 to $ 1.00 for d-limonene and $0.60 to $1.00 for glycol ethers. Even if this 20%-water compliant formulation were efficacious, it would be more, not less, expensive. (CSPA-1)

Agency Response: The Response to Comments 102 - 103 is incorporated herein. Raw material pricing was obtained from the "Chemical Market Reporter," discussions with industry representatives, internet searches, or relatively high default values of $3.50 or $7.00 per pound. The price estimates were used for both noncomplying and complying sample formulations. Therefore, if the cost of an ingredient was underestimated (as suggested by the Commenter), it may either raise or lower the estimated change in materials cost when reformulating to a complying product. When the Commenter's suggested costs of raw materials were used for this category, changes in reformulation costs were negligible.

106. Comment: Adhesive Remover-Specialty Non-aerosol: This analysis predicts a $0.13 to $0.38 reduction in ingredient costs per pound, obtained largely through replacing hydrocarbon solvents with acetone and ethyl lactate,

while also significantly reducing "inorganics". The reduction of the "inorganics" which cost $7.00/pound provide all of the lowered cost, even though this reduction plays no role in reducing VOC content. It is unclear what high-cost inorganic ingredients might be used in such products, but if such ingredients could be lowered without affecting efficacy, they would already have been reduced for obvious cost reasons. (CSPA-1)

Agency Response: The Response to Comments 102 - 103 is incorporated herein. Due to manufacturer concern with confidentiality of their formulas, the exempts and inorganic compounds were not speciated. Thus, there will be ingredients in the representative formulas which are unknown and for which the actual cost of the raw material is unknown. In these cases a relatively high cost general range estimate of $3.50 to $7.00 a pound is used for these general or "black box" type raw materials. This is to compensate for any high cost unknown ingredients such as fragrances or resins, but may overestimate the costs of some inorganics. This method has been used in past economic analyses where exact formulas where unknown, or unavailable due to confidentiality concerns. It should also be noted that staff used the same methods to calculate the cost of complying (reformulated) products as we did for existing (noncomplying) products.

107. Comment: Adhesive Remover-Floor or Wall Covering (non-aerosol #1): This analysis predicts a $0.25 reduction in ingredient costs per pound, obtained largely through replacing methylene chloride with water. Even a cursory review of the physiochemical properties of these solvents would make it obvious that water is not a feasible replacement for methylene chloride in any product. (CSPA-1)

Agency Response: The complying formula used was based on an actual product(s) submitted in the survey. Use of these complying formulas does not imply that staff recommends using water as a "drop-in" replacement for methylene chloride in existing formulas. The limit was set at a level in which more than one technology is available for compliance, giving manufacturers flexibility for meeting the VOC limits.

108. Comment: Anti-Static Product-Aerosol: This analysis predicts a $0.01 to $0.05 reduction in ingredient costs, obtained largely through replacing ethanol with water, and reducing "inorganics" and propellant. As with the adhesive remover category above, the cost reductions result from significant reductions in $7.00/pound "inorganics" that provide no VOC reductions. Since the active ingredients in these products are non-solvent LVP-VOCs, neither of these products would be effective anti-static products, since they contain no non-solvent LVP-VOCs. (CSPA-1)

Agency Response: The Response to Comments 102 - 103 is incorporated herein. Complying formulas were based on actual formulas

submitted to the 2001 survey. In addition, as stated in the response to Comment No. 109 exempts and inorganic compounds were not speciated in the survey due to concerns from manufacturers about the confidentiality of their formulas. Certain ingredients in the representative formulas are therefore unknown, and the actual cost of the ingredients is also unknown. In these cases a relatively high cost general range estimate of $3.50 to $7.00 a pound is used for these general or "black box" type raw materials. The price estimates were used for both noncomplying and complying sample formulations. Even if a formula was used that included non-solvent LVPs as suggested by the commenter, this would also be an unknown or "black box" ingredient and would have been assigned the estimated cost of $3.50 to $7.00 a pound in the ISOR cost estimate. This means that that ISOR cost estimates are accurate and do not need to be changed.

109. Comment: Electrical Cleaner-Aerosol: This analysis predicts no increase in ingredient costs, with lower VOCs obtained largely through replacing hydrocarbon solvents with water and acetone. These products cannot contain even 10% water, however, due to the potential to rust electrical equipment. (CSPA-1)

Agency Response: Staff believes that some water can be used in these products. There were a few Electrical Cleaners reported in the 2001 Consumer & Commercial Products Survey that did contain water. These products are normally applied and wiped off when used, which would prevent rusting of a part. Also, it is not uncommon for parts similar to those that would be used with this type of product to be pressure washed and/or used in parts washers using water-based cleaners. Thus, we believe that the cost information used is valid.

110. Comment: Electrical Cleaner-Non-aerosol: This analysis predicts $0.08 reduction in ingredient costs, obtained largely through replacing hydrocarbon solvents with water. As with the aerosol products of this type, these non-aerosol electrical cleaners cannot contain even 10% water due to the potential to rust electrical equipment. (CSPA-1)

Agency Response: The Response to Comment 112 is incorporated herein. Small amounts of water, in conjunction with fast evaporating exempt solvents such as acetone and other VOC solvents, may slow the evaporation rate slightly, but not to a degree that rusting would be expected.

111. Comment: Graffiti Remover-Non-aerosol: This analysis predicts a $0.58 to $0.59 decrease in ingredient costs, obtained largely through replacing glycol ethers and d-limonene with LVPs and water. This erroneous result is created by grossly inaccurate price data for each key ingredient: glycol ethers usually cost $0.60-$1.00/pound, not $1.42; d-limonene generally costs $0.58-$1.00/pound, not $1.25; and LVP glycol ethers generally cost $1.05-$1.45/pound, not $0.25. In addition, 45% water would very significantly reduce the efficacy of this product,

and result in significantly increased use and no VOC emission reductions. Actual VOC-reduced reformulations will likely result in significant increases in ingredient costs. (CSPA-1)

Agency Response: The Response to Comments 102 - 103 is incorporated herein. The VOC complying formulations used were based on actual product formulations submitted on the survey. In addition, the ARB does not expect manufacturers to use any one technology to comply with the standard. In most cases, the limit was set at a level in which more than one technology is available for compliance, giving manufacturers flexibility for meeting VOC limits.

For compound pricing, the ARB staff used information from the "Chemical Market Reporter," discussions with industry representatives, internet searches, or relatively high default values of $3.50 or $7.00 per pound. For compounds where internet searches were preformed, reagent grade or laboratory grade pricing was used, which will typically be higher than costs for compounds to manufacturers. When a high and low cost per pound was found for a compound the average cost per pound was calculated. Differences between the price paid by the commenter and the price listed in the analysis may be due to differences in the specific grade or type of ingredient listed, and the amount purchased by the individual company. The price estimates were used for both noncomplying and complying sample formulations. Therefore, if the cost of an ingredient was underestimated (as suggested by the commenter), it may either raise or lower the estimated change in materials cost when reformulating to a complying product. When the commenter's suggested costs of raw materials were used, changes in reformulation costs were negligible.

112. Comment: Wood Cleaner-Aerosol: This analysis predicts no change in ingredient costs, with compliance also obtained largely through replacing VOC solvent with LVPs, alcohol and water. The primary problem with this analysis is that neither formulation used in this analysis (both of which contain 73%-75% water) is a feasible product formulation for cleaners for use on unfinished wood surfaces that are very sensitive to water. (CSPA-1)

Agency Response: Staff has provided a representative and appropriate complying formula. It should be noted that the 17 percent limit is the same as for Furniture Maintenance Products, products designed to be applied to wood furniture to clean and protect the surface. Water is used extensively in this category. We expect this technology to be utilized in aerosol Wood Cleaners. However, staff acknowledges that this formula may not be reasonable for every product. To provide a complying product formula for every product would be too resource intensive and would serve little, if any, purpose. Staff also notes that no comments were received that indicate the limit cannot be achieved.

113. Comment: Wood Cleaner-Non-aerosol: This analysis predicts a $0.05 decrease in ingredient costs, with compliance also obtained largely through

replacing alcohol and glycol ethers with LVPs and water. The inaccurate prices used for glycol ethers and LVP glycol ethers cause most of this erroneous result. In addition, as with the aerosol product above, the primary problem with this analysis is that neither formulation used in this analysis (which contain 91%-95% water) is a feasible product formulation for cleaners for use on unfinished wood surfaces which are very sensitive to water. (CSPA-1)

Agency Response: Staff stands by the product formulation and costs provided and notes that 90 percent of products comply with the 4 percent limit. However, staff acknowledges that this formula may not be reasonable for every product. To provide a complying product formula for every product would be too resource intensive and would serve little, if any, purpose. No comments were received indicating the limit was not feasible.

114. Comment: Appendix E: "Summary of Cost Calculations" of the ISOR, contains 68 tables representing "low cost" and "high cost" options for reformulating 34 products and forms to comply with the proposed VOC limits. Most of the assessments find that reformulated compliant products will cost less in terms of ingredient costs. Some of the most common and systematic errors include the following:

- Many of the "VOC Compliant" formulations used in the cost comparisons represent products that are not technologically or commercially feasible, i.e., the products would not function property in the intended uses (technological infeasibility), and therefore not be able to maintain their markets (commercial feasibility).

- Many of the "VOC Compliant" formulations are simply "watered-down" versions of the "Typical Non-compliant" water-based product formulations. White this could indeed lead to lower ingredient costs, this would not usually result in technologically or commercially feasible products, since these products have already been formulated to maximum water content for obvious cost reasons. In most cases, additional water will not result in lower VOC emissions, and could result in increased emissions from increased product use.

- Errors in ingredient pricing often result in cost decreases being projected when cost increases would actually occur. Glycol ethers (VOCs) and LVP glycol ethers are inaccurately priced at $ 1.40/pound and $0.25/pound, respectively, while actual market prices are closer to $0.75 and $1.25, respectively. Lowering, VOCs by substituting glycol ether LVPs for VOCs would therefore result in significant cost increases, riot the significant cost decreases projected in these analyses. (CSPA-1)

Agency Response: The commenter is incorrect in suggesting that the

ARB used unrealistic formula and cost information. The formulations used were based on actual product formulations submitted on the ARB consumer product survey. In addition, proposed complying formulas were available prior to the staff report for industry review and comment. Regarding ingredient prices, the ARB staff used information from the "Chemical Market Reporter," discussions with industry representatives, internet searches, or relatively high default values of $3.50 or $7.00 per pound. For compounds where internet searches were preformed, reagent grade or laboratory grade pricing was used, which will typically be higher than costs for compounds to manufacturers. When a high and low cost per pound was found for a compound the average cost per pound was calculated. Differences between the price paid by the commenter and the price listed in the analysis may be due to differences in the specific grade or type of ingredient listed, and the amount purchased by the individual company. The price estimates were used for both noncomplying and complying sample formulations. Therefore, if the cost of an ingredient was underestimated (as suggested by the commenter), it may either raise or lower the estimated change in materials cost when reformulating to a complying product. When the commenter's suggested costs of raw materials were used, differences between the commenter's and the ARB's reformulation costs were negligible.

115. Comment: Adhesive Remover---General Purpose Non-aerosol: This analysis predicts a $0.17 reduction in ingredient costs per pound of product, obtained largely through replacing d-limonene and glycol ethers with water, dibasic esters and alcohol. This reduction was calculated using inaccurate costs of $1.25/pound for d-limonene and $ 1.42 for glycol ethers in the compliant product, while actual costs for these ingredients range from $0.58 to $1.00 for d-limonene and $0.60 to $1.00 for glycol ethers. Even if this 20%-water compliant formulation were efficacious, it would be more, not less, expensive. (CSPA-1)

Agency Response: As stated for the previous comment, raw material pricing was obtained from the "Chemical Market Reporter," discussions with industry representatives, internet searches, or relatively high default values of $3.50 or $7.00 per pound. The price estimates were used for both noncomplying and complying sample formulations. Therefore, if the cost of an ingredient was underestimated (as suggested by the commenter), it may either raise or lower the estimated change in materials cost when reformulating to a complying product. When the commenter's suggested costs of raw materials were used for this category, differences between the commenter's and the ARB's reformulation costs were negligible.

116. Comment: Adhesive Remover---Specialty Non-aerosol: This analysis predicts a $0.13 to $0.38 reduction in ingredient costs per pound, obtained largely through replacing hydrocarbon solvents with acetone and ethyl lactate, while also significantly reducing "inorganics". The reduction of the "inorganics" which cost $7.00/pound provide all of the lowered cost, even though this reduction plays no role in reducing VOC content. It is unclear what high-cost

inorganic ingredients might be used in such products, but if such ingredients could be lowered without affecting efficacy, they would already have been reduced for obvious cost reasons. (CSPA-1)

Agency Response: Due to the nature of the ARB consumer products survey, exempt and inorganic compounds were not speciated because manufacturers were concerned about the confidentiality of their formulas. Therefore, there will be ingredients in the representative formulas which the ARB does not know, and therefore the actual cost of the raw material is unknown. In these cases the ARB staff used a relatively high cost general range estimate of $3.50 to $7.00 a pound for these general or “black box” type raw materials. This should compensate for any high cost unknown ingredients such as fragrances or resins, but could overestimate the costs of some inorganics. However, there is no other practical way to conduct the analysis given the limitations of the data provided by manufacturers. This method has been used in past economic analyzes where exact formulas where unknown or unavailable due to confidentiality concerns. It should also be noted that staff used the same methods to calculate both the cost of complying (reformulated) products and existing (noncomplying) products.

117. Comment: Air Freshener--Solid: This analysis predicts a $0.16 to $0.41 reduction in ingredient costs, obtained largely through replacing p-dichlorobenzene with 92% water and 5% silica gel. One obvious problem with this "compliant" formula is that it is not a solid at room temperature. While technologically and commercially feasible compliant products do exist in this category, ingredient costs are significantly higher, as was demonstrated elsewhere in this Staff Report when comparing the costs of p-dichlorobenzene products with non-p-dichlorobenzene air fresheners and toilet/urinal care products. (CSPA-1)

Agency Response: The compliant formula was based on several actual formulas of solid air fresheners submitted in the 1997 consumer products survey. We also disagree that the staff report demonstrates elsewhere that ingredient costs will be higher when comparing the costs of para-dichlorobenzene (PDCB) products with non-PDCB air fresheners and toilet/urinal care products. We can only assume the commenter is referring to the cost comparison in section VII of the staff report for the ATCM which compared retail prices of PDCB to non-PDCB products currently on the market instead of the cost of manufacture. In determining retail prices, many other factors come into play other than ingredient costs to manufacture that may drive one product to be more expensive than another. It was also mentioned in this section of the staff report that although PDCB blocks generally cost less than their non-PDCB counterparts there was substantial overlap in prices between both the PDCB and the non-PDCB products.

118. Comment: Fabric Refresher-Aerosol: This analysis predicts a $0.05 to $0.06 reduction in ingredient costs, obtained largely through replacing hydrocarbon propellants with water. Water is obviously not a technologically feasible replacement for any propellant. The level of propellants used in these products, as with all aerosol products, must be sufficient to fully empty the container. (CSPA-1)

Agency Response: As stated in responses to previous comments complying formulas were based on actual formulas submitted to the 2001 survey. The issues raised by the commenter are the same ones raised by the commenter in Comment No. 114, and the issues are addressed in the response to this comment.

119. Comment: Fabric Refresher-Pump Spray: This analysis predicts a $0.04 decrease in ingredient costs, obtained solely through replacing alcohol with water. This simplistic reformulation would result in a slower drying product, and potential to enhance mold growth within damp fabrics. (CSPA-1)

120. Comment: Fabric Refresher-Liquids: This analysis predicts a $0.11 to $0.18 decrease in ingredient costs, obtained primarily through replacing alcohol and fragrance with water, with most of the cost savings being through fragrance reduction. If this reformulation option were followed, no VOC emission reductions would occur, since it would lead to increased product use. (CSPA-1)

Agency Response to Comments No. 119 - 120: These products were based on a complying formula submitted in the 2001 survey. Of the products submitted in the survey, 97% can currently meet the 6% VOC limit for non-aerosol fabric refreshers. This high complying market share convincingly shows that these products meet the needs of consumers and do not have any of the problems suggested by the commenter.

121. Comment: Fabric Refresher-Solids: This analysis predicts a $0.05 to $0.12 decrease in ingredient costs, obtained largely through replacing "inorganics" with VOC solvent and fragrance, therefore actually *increasing* the effective VOC content from 6% to 10% (with 2% fragrance exempted). The reformulation data therefore actually demonstrate a $0.05 to $12 *increase* in costs for the complying product compared to the non-complying product. (CSPA-1)

Agency Response: There was a typographical error; the complying and non-complying formulas were switched in the tables. When the analysis was redone, the estimated per-unit cost increases from both annualized non-recurring and recurring costs would average $0.20 per unit instead of the $0 per unit as reported in the staff report. Although this cost would increase the total impact to businesses within this category, the adjustment did not noticeably affect the overall cost of the regulation.

122. Comment: Footwear and Leather Care Product-Semi-solid: This analysis predicts a $0.01 to $0.02 decrease in ingredient costs, obtained largely through replacing hydrocarbon solvent with LVP hydrocarbons and water. It should be obvious that water cannot be used as a simple replacement for hydrocarbon solvent, especially since this product must maintain a single phase, and very little water can be tolerated on products used on leather. In general, compliance for leather care products will require increases in LVP solvents, and significant increases in ingredient costs. (CSPA-1)

Agency Response: The complying and non-complying formulas were based on actual formulas submitted in the survey. The use of these formulas in the ISOR does not mean that water can be used as a "drop-in" alternative or a simple replacement to hydrocarbon solvents in product reformulations. The proposed VOC limits were set high enough to allow many different alternatives in reformulating to meet the proposed limit.

As discussed in the ISOR , many of the semi-solid products are emulsion shoe cream polishes that contain 30 to 50 percent water. We therefore disagree that very little water can be tolerated by leather. We are not implying that water alone can directly replace conventional hydrocarbon solvents. While there may be increased costs by substituting LVP hydrocarbon solvents, any concurrent reduction of conventional hydrocarbon solvent use would provide a cost offset to the increases, and any reformulation to allow greater water content would also help offset the increases.

123. Comment: Footwear and Leather Care Product-Liquid: This analysis predicts a $0.32 to $0.36 decrease in ingredient costs, obtained largely through replacing 84% alcohol with 82% water. This amount of water far exceeds that which can be tolerated in a leather care product. As noted above, compliance for leather care products generally will require increases in LVP solvents, and significant increases in ingredient costs. (CSPA-1)

Agency Response: The complying and non-complying formulas were based on actual formulas submitted in the survey. The use of these formulas in the ISOR does not mean that water can be used as a "drop-in" alternative or a simple replacement to hydrocarbon solvents in product reformulations. The proposed VOC limits were set high enough to allow many different alternatives in reformulating to meet the proposed limit.

Survey data show many water-based leather care products with water content in the range 82% - 95%. Therefore, staff believes that high water content in a product would not necessarily harm leather. Liquid products for automotive leather in particular have high water content. The high-VOC liquid products referred to in the ISOR are alcohol-based organic dyes, and organic-dye-reducer products, which are both low sales, specialty products. Reformulation options for

these products include changing to a water-based formulation using pigment dyes. It would not be a simple substitution of water for alcohol in a product. Water-based dye products are currently being marketed that would comply with the proposed limits; staff received data for such products during the survey.

124. Comment: Graffiti Remover-Non-aerosol: This analysis predicts a $0.58 to $0.59 decrease in ingredient costs, obtained largely through replacing glycol ethers and d-limonene with LVPs and water. This erroneous result is created by grossly inaccurate price data for each key ingredient: glycol ethers usually cost $0.60-$1.00/pound, not $1.42; d-limonene generally costs $0.58-$1.00/pound, not $1.25; and LVP glycol ethers generally cost $1.05-$1.45/pound, not $0.25. In addition, 45% water would very significantly reduce the efficacy of this product, and result in significantly increased use and no VOC emission reductions. Actual VOC-reduced reformulations will likely result in significant increases in ingredient costs. (CSPA-1)

Agency Response: The VOC complying formulations used were based on actual product formulations submitted on the survey. In addition, the ARB does not expect manufacturers to use any one technology to comply with the standard. The limit was set at a level in which more than one technology is available for compliance, giving manufacturers flexibility for meeting VOC limits. Based on the analysis in the ISOR, staff believes that the proposed limits are feasible and will result in efficacious products.

For compound pricing, the ARB staff used information from the “Chemical Market Reporter,” discussions with industry representatives, internet searches, or relatively high default values of $3.50 or $7.00 per pound. For compounds where internet searches were preformed, reagent grade or laboratory grade pricing was used, which will typically be higher than costs for compounds to manufacturers. When a high and low cost per pound was found for a compound the average cost per pound was calculated. Differences between the price paid by the commenter and the price listed in the analysis may be due to differences in the specific grade or type of ingredient listed, and the amount purchased by the individual company. The price estimates were used for both noncomplying and complying sample formulations. Therefore, if the cost of an ingredient was underestimated (as suggested by the commenter), it may either raise or lower the estimated change in materials cost when reformulating to a complying product. When the commenter’s suggested costs of raw materials were used, changes in reformulation costs were negligible.

125. Comment: Toilet and Urinal Care Product--Solid (Automatic): This analysis predicts a $0.07 decrease in ingredient costs for the "low-cost" example, obtained largely through replacing p-dichlorobenzene with inorganic salts, additional fragrance, alcohol, and LVP. Unfortunately, the "VOC Compliant" formulations given in both examples have effective VOC content of 13%, which significantly exceeds the proposed 3% VOC limit. The cost

assessment is also obviously faulty, since elsewhere in this Staff Report, it is acknowledged that non-para alternatives are priced significantly higher than p-dichlorobenzene products. Industry experience is that p-DCB products designed to hang under the toilet bowl rim cost about $0.50 each in the consumer marketplace, while the lower cost non-p-DCB solid formulations retail for about twice that amount. Manufacturers typically pay several dollars per pound for non-p-DCB fragrance ingredients used in toilet and urinal care products, while industrial quantities of p-DCB would be on the order of $0.75-0.80/pound. There will be a very significant recurring cost increase in this product category due to this regulation. (CSPA-1)

Agency Response: The complying formula for this example was a typographical error; the wrong formula amounts were entered. If a new representative formula is used of 3% fragrance, 50% borax, 37% sodium sulfate, and 10% hexylene glycol and the cost analysis recalculated for this category, the cost of the new formula would be between $0.41 and $0.51 a pound and a new estimated average per-unit cost increase from both annualized non-recurring and annual recurring costs is zero. The commenter also states the cost assessment is also obviously faulty, since elsewhere in the ISOR (section VII) a comparison of retail prices did not seem to correlate with the manufacturing costs submitted in section VIII. The economic analysis performed in section VIII details manufacturing costs and not retail prices. It is incorrect to assume that retail prices directly correspond to the cost of manufacture. In determining retail prices, many other factors come into play other than ingredient costs.

It was also mentioned in section VII of the staff report that although PDCB blocks generally cost less than their non-PDCB counterparts there was substantial overlap in prices between both the PDCB and the non-PDCB products. That manufacturers typically pay several dollars per pound for non-PDCB fragrance ingredients used in toilet and urinal care products was already factored into the cost analysis since fragrance is assigned the relatively high default values of $3.50 or $7.00 per pound. In addition, 59% of the solid toilet and urinal care products submitted in the 2001 Consumer Products Survey would meet the 3% VOC limit.

126. Comment: Toilet and Urinal Care Product-Liquid (Manual): This analysis predicts a $0.48 to $0.96 decrease in ingredient costs, obtained largely through replacing fragrance with water. While it is certain that water costs less than fragrance ingredients, this analysis fails to consider the obvious reality that consumers purchase and use these toilet and urinal care products because they expect them to provide sufficient fragrance concentration (and aesthetic quality) in the air around the bathroom fixture(s) to mask unpleasant fecal and urine odors, thereby providing a more pleasant environment. The relative cost of various fragrance ingredients, or other formulation technology, is generally related directly to those ingredients' performance. Thus, if fragrance blends and associated formulation technology exist that can provide the desired product

benefits with lowered VOC levels, those ingredients will cost more, rather than less, as ARB's analysis suggests. More likely, if fragrance will be replaced with water as ARB projects for some of these products, it is reasonable to assume that product usage rates will increase to allow more and adequate amounts of similar fragrances (as these products have previously used) to be released in order to counteract or mask bathroom odors. Whether more of the product needs to be used, or more expensive ingredients need be identified to perform the same function with less VOC concentration and total emissions, the costs to manufacturers and consumers will be higher. (CSPA-1)

Agency Response: The complying and non-complying formulas were based on actual formulas submitted in the survey. Of the liquid toilet and urinal care products submitted in the survey (which includes both manual and automatic), 98% currently comply with the 3% limit. This extremely high complying market share strongly suggests that these products are performing adequately and that the concerns voiced by the commenter are not realistic.

As indicated in the ISOR, the vast majority of manual products are cleaners (0.04 percent VOC sales-weighted-average) which already meet the proposed limit of 3% VOC. The few high VOC products, have the option of using less fragrance at levels similar to many existing products. If more effective but more expensive fragrances are needed, then the products will be reformulated to be similar to the vast majority of existing products. Cleaning products generally use fragrance only for temporary masking, useful only during manual cleaning and immediately after, since the product is often promptly flushed down the drain. Providing fragrance, particularly the apparently higher levels used by the few non-complying products, is not the main function of these products. Staff therefore expects overall fragrance costs to increase only minimally due to the few non-complying products.

127. Comment: Toilet and Urinal Care Product-Liquid (Automatic): This analysis predicts a $0.29 to $0.56 decrease in ingredient costs, also obtained largely through replacing fragrance with water. As with the above assessment on manual liquids, this assessment is obviously faulty. Mere dilution of products with water is not a reasonable compliance option, nor would it result in VOC emission reductions. (CSPA-1)

Agency Response: The complying and non-complying formulas were based on actual formulas submitted in the survey, which strongly suggests that the ARB has identified reasonable compliance options.

128. Comment: The most significant errors CSPA found in its review of these support documents to the proposed rule under CONS- I relate to the economic impact and cost analyses. The errors in the process of analysis and cost estimates for recurring and non-recurring costs have resulted in significant underestimates of the total costs to the consumer products industry, and

significant overestimating of the cost-effectiveness of this rule. CSPA therefore urges ARB to revise these analyses as part of its Final Statement of Reasons. (CSPA-1)

Agency Response: See the responses to Comments No. 98 - 128 (all economic analysis questions submitted by CSPA). As stated in these responses, staff believes that the economic impact and cost analyses were properly conducted. It is therefore unnecessary to revise these analyses as part of this FSOR, except for a few minor instances where typographical errors were made in the ISOR. These few errors are acknowledged and corrected in the responses to the comments which identify these errors.

Technical and Commercial Feasibility

129. Comment: Although CSPA continues to disagree regarding some aspects of ARB's current interpretation of the statutory concepts of "technological feasibility" and "commercial feasibility" as they relate to consumer products, this disagreement does not appear relevant to these current proposed amendments if the relatively minor modifications are made that we outlined in the main body of these comments. (CSPA-1)

Agency Response: Staff's interpretation of the terms "technologically and commercially feasible" is set forth in the ISOR. This interpretation is a long-standing one that has been used in every consumer products rulemaking since 1990. The minor modifications suggested by the Commenter refer to the Adhesive Remover categories and are unnecessary because feasible limits have been set for all subcategories (see the responses to Comments No. 71 - 78).

130. Comment: CSPA continues to disagree with ARB regarding the appropriateness of regulating products through changes in definitions without adequate data or assessment of technological or commercial feasibility. If changes in any regulatory provision will result in changing the VOC limit applicable to one or more products, we believe that the statutory requirements for adequate data, technological and commercial feasibility, and preservation of product forms, must apply just as if a new VOC limit is being proposed for those products. Products should not be regulated by a "back door" approach that circumvents these important statutory protections. (CSPA-1)

Agency Response: This is a general comment that does not refer to any particular definitions. Staff believes that all definitional changes should be evaluated on a case-by-case basis. Staff agrees that some definitional changes could have the effect identified by the commenter and should not be made without an analysis of technological and commercial feasibility. Other definitional

changes, however, may not have this effect. For example, the changes may merely clarify an existing definition where the feasibility of the clarification has already been established by the analyses conducted in past ARB rulemakings.

Reactivity

131. Comment: The proposed rule includes some mass based limits for a number of adhesive removers and other solvent products. While we are willing to accept most of these limits, there are a few subcategories for which these mass based limits may prove to be technologically or commercially infeasible. ARB staff committed to investigate the possibility of reactivity-based limits for these products. And CSPA looks forward to working with ARB staff to develop these reactivity-based limits. (CSPA-2)

132. Comment: The Council believes a reactivity-based approach to VOC limits can be effective in promoting reductions in the ozone-forming potential of product formulations without compromising product performance. ARB has recognized the benefits of a reactivity-based approach in its aerosol coatings rules; the Council believes a similar approach here and in future consumer product regulations would facilitate greater reductions in ozone-forming potential of products than can be achieved with mass-based limits alone. The Council is aware that CSPA has urged ARB to consider reactivity-based limits for the current rulemaking; the Council supports those comments and believes such an approach should still be considered.

As ARB knows, if the efficacy of a product (such as an adhesive remover) is reduced, the result may be that consumers use more of the product to accomplish a given job. Thus, where product performance is compromised through excessively stringent mass-based limits, projected environmental benefits may be offset by increases in quantities of product used.

Further, under ARB's mass-based approach, all non-exempt VOCs are treated alike, even though it is known that their potential contributions to ozone formation vary widely (as much as 100- Companies therefore have little incentive to reformulate from higher- to lower-reactivity nonexempt substances, such that opportunities for further progress through such reformulations are missed. Stringent mass-based VOC limits may even lead to increases in total ozone contribution of formulated products through use of higher solvency ingredients with higher reactivity (as in fact has been observed in California in at least some product categories). A reactivity-based approach would address these concerns, while giving product formulators greater flexibility to develop formulations that meet product performance requirements

Accordingly, the Council urges ARB to consider use of reactivity-based VOC limits instead of mass-based limits in the consumer product regulations now being promulgated, and in future consumer product regulations for those product categories where equivalent reactivity-based limits are practical. (ACC)

Agency Response to Comments 131 - 132: Staff disagrees that any of the mass-based limits are technologically or commercially infeasible. Each limit is justified by the analysis presented in the ISOR. Staff has committed to explore reactivity-based limits for various solvent categories in future rulemakings. We also committed to analyze the possibility of future reactivity-based limits for existing consumer products categories.

Staff believes that a reactivity-based approach to VOC limits can be an effective control strategy. But staff also believes that the ARB's predominant approach--mass-based limits--is also extremely effective. Experience indicates that a mass-based approach leads to ozone reductions and has not led to the negative environmental impacts suggested by the commenter. It is the Board's policy to seek the maximum feasible mass-based reduction. Only in instances when mass can not be reduced effectively does the ARB consider reactivity-based standards. In the case of the categories proposed for control in this rulemaking, staff has been able to propose mass-based limits that are feasible and will result in significant VOC emission reductions. As always, staff will work with the industry on future rulemakings to implement appropriate control strategies.

133. Comment: We believe in the science of reactivity and encourage you to use reactivity-based limits for the Cons 2 regulations. (MagicAmer)

Agency Response: Comment noted, however, the comment is not directed at the current rulemaking action.

134. Comment: The ISOR presents a confusing and questionable argument that, even though PDCB demonstrates low reactivity, eliminating PDCB will not significantly increase the use of more reactive VOCs in substitutes. The proposal concedes that PDCB has a lower reactivity than its substitutes, but simply declares that the shift to substitutes will increase **(sic)** ozone formation. This conclusion is reached through a highly questionable use of "hocus-pocus," in which the staff refers to private phone contacts with Dr. William Carter, the developer of the MIR scale used in this proceeding. Staff "adjusts" the published MIR value upward "to help ensure an air quality benefit." Then the MIR value would be doubled for no apparent reason. After all these machinations, the MIR number for PDCB is recalculated to be a much higher number. See Initial Statement of Reasons at IX-214. At the end of the long and complicated calculation, the proposal concludes that PDCB "could react to form over five times more ozone than would be assumed using the published MIR value." (CPA-1)

Agency Response: Staff does not agree that the reactivity discussion in the ISOR is flawed and does not agree that the reactivity of PDCB is overstated. The staff report notes that the MIR value for PDCB (0.20 g O_3/ g VOC) is uncertain and should be used with caution. Dr. Carter's chemical mechanism does not incorporate chlorine chemistry. No photochemical reactivity data are available so the MIR value is based on a parameterized estimate only. In instances when MIR values are "uncertain," for regulatory purposes, staff adjusts MIR values upward to insure an air quality benefit. However, in determining whether there would be an ozone concentration increase due to the prohibition, staff used the MIR value of 0.2 g O_3/ g VOC on face value (*i.e.* not adjusted upward) and still found an air quality benefit from eliminating its use. The air quality benefit would be even greater if staff had used an adjusted MIR value for PDCD.

135. Comment: This entire assessment appears to be an effort to prove that the elimination of PDCB will not result in an elevation of the use of more reactive VOCs. However, if that were in fact true, then staff would not have needed to use multiple adjustments to elevate the MIR value of PDCB. CPA objects to the machinations that staff apparently feels are necessary to accomplish what has become a principal goal - the elimination of PDCB. If PDCB is not eliminated because a scientifically sound approach is taken to risk assessment, then the true price to be paid due to elevation of the use of reactive VOCs would have to be considered. (CPA-1)

Agency Response: This comment is addressed in the response to the previous comment. Staff disagrees that prohibiting the use of PDCB will result in increased ozone production because the alternatives are more reactive. No "machinations" were used to arrive at our conclusion. Staff's analysis found that the prohibition would result in an air quality benefit. While PDCB is a low reactive compound (MIR 0.2 g O_3/ g VOC), the entire product is VOC. The alternatives may use higher reactive fragrance components (approximately 4.0 g O_3/ g VOC) but only a very small amount (3 percent). Eliminating the 100 percent VOC product (PDCB) results in an air quality improvement. Our analysis found that ozone production from Toilet/Urinal Care Products and Air Fresheners would be cut in half by prohibiting PDCB.

Environmental Impact

136. Comment: We have reviewed the potential wastewater impacts, and we concur with ARB staff that there would be an overall positive impact on wastewater quality. (CSDLAC-1, Tri-TAC-1)

137. Comment: We're here today because of potential water quality impacts of the rule. And we're delighted to say that we're here because of the potentially beneficial adverse water quality impacts of the rule. We're delighted with the way Board staff has been changing over the years and being much more considerate of water issues. And we're really happy to see a rule come to the table that's both good for the air and for the water. (Tri-TAC-2)

Agency Response to Comments 136 - 137: Comments noted.

Request for Ozone Air Quality Modeling

138. Comment: We believe that this cursory assessment on "The Need for Emissions Reductions" falls far short of the assessment that should be conducted to assure that this regulation is "necessary to attain state and federal ambient air quality standards" as required by Section 41712(b)(1) of the Health and Safety Code. CSPA believes that a quantitative assessment of air quality benefits should be conducted for all proposed air quality measures. This assessment can be accomplished using the computerized air quality models that are currently used to establish carrying capacity (attainment inventories) for the State Implementation Plan for Ozone. Such an assessment is needed to establish the actual air quality impact of the proposed regulation on ozone.

This use of air quality models and other analytical techniques for this type of analysis was the basis of another California statutory requirement for a study to be conducted by ARB at least every three years. In pertinent part, Section 39609 of the Health and Safety Code requires that "On or before December 31, 1989, and at least every three years thereafter, the state board shall complete a study on the feasibility of employing air quality models and other analytical techniques to distinguish between emission control measures on their relative air quality impact." The initial study developed under this section was released on December 31, 1999, entitled "Feasibility of Using Air Quality Models and Other Techniques to Distinguish between Emissions Control Measures." Regarding ozone, the study concluded that "currently available photochemical grid models are feasible for districts to use to help prepare their ozone attainment plans." The study also concluded that assessing "ozone impacts due to small emissions sources is not feasible because the uncertainty associated with the model results may be greater than the changes in pollutant concentrations from a small increase or decrease in emissions," but the report provides no indication regarding how large an emissions change would be necessary to make such assessments meaningful. We were not able to find any evidence that more recent studies have been conducted by ARB subsequent to this initial 1989 study, despite the legislative mandate.

Since air quality modeling has improved significantly over the past fifteen years, we believe that it is past time to conduct another study, as required by Section 39609 of the Health and Safety Code, to assess whether air quality modeling can be used to assess the relative air quality benefits of various control measures. We believe that such evaluations would provide a valuable tool for assessing the relative cost-effectiveness of various control measures for ozone attainment. (CSPA-1)

Agency Response: Staff believes that the proper modeling assessments have been done to demonstrate that consumer products emission reductions are necessary to attain the National Ambient Air Quality Standard (NAAQS) for ozone. All modeling results show that attainment will not be achieved without significant additional Consumer Product reductions.

This portion of the ISOR the Commenter refers to is intended to provide an overview of California's air quality problems, the health impacts, and the need for significant emissions reductions from all sources of air pollution. In the Ozone SIP that is cited, consumer products regulations are clearly necessary to attain the NAAQS. The Ozone SIP has specific commitments for consumer product measures and numerous other specified measures; however, there is also a large "Black Box" of unspecified measures needed to attain the standards. All specified measures, including those for consumer products, and the "Black Box" were considered for the attainment demonstration modeling. Additional specific measures need to be identified to replace the "Black Box." To suggest that the consumer product measures may not be needed, especially with the large tonnage of yet to be determined "Block Box" measures is inconsistent with modeling results, and unfair to other source categories that would be required to reduce emissions further if consumer products are 'excused' from further reduction. Modeling results consistently show the need for all source categories to reduce emissions. Relative cost-effectiveness of various control measures on a dollar per pound VOC reduced is provided in Table VIII-6 of the ISOR.

139. Comment: It is important to note that the 1996 ARB modeling studies for the South Coast Air Basin that showed reductions in both peak ozone concentrations and population exposure to ozone were conducted assuming no other reductions in ozone precursors, and therefore were not relevant to attainment conditions or maintenance of the ozone standard. Atmospheric conditions during ozone attainment necessarily will be very different than current conditions. Sierra Research conducted a similar modeling study in 1997 to assess the impact of consumer product VOC emissions on peak ozone levels under ozone-attainment conditions. That study, which used the same air quality model and emissions inventories used by ARB for the 1994 State Implementation Plan, found that differences in peak ozone levels in the South Coast and Sacramento Air Quality Management Districts that could be obtained through the further regulation of consumer products were too small to result in a change in

ozone attainment status, and indeed too small to be measured by current ambient air quality monitors. (CSPA-1)

Agency Response: The 1997 Sierra Research studies are an interesting intellectual exercise but are not particularly relevant to California's air pollution problem or the ARB's air pollution control programs. Many areas of the State currently do not attain the ozone standard. The modeling conducted in this study ignores the reductions needed to achieve attainment. The current Ozone SIP relies on significant emissions reductions from all pollution sources. Modeling studies conducted by the ARB demonstrate attainment can not be achieved without further consumer product reductions. The attainment demonstration required numerous specific measures, including consumer product measures, and a large "Black Box." Further discussion of the issues raised in this comment can be found in the response to the previous comment.

Request for Technology Assessments

140. Comment: The VOC limits proposed for the remaining Footwear or Leather Care Products will be difficult to achieve for some products and forms, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of each of these Limits to determine whether the standards have proven to be feasible for all of the many products or forms that comprise this diverse category of products. (CSPA-1)

141. Comment: The VOC limits proposed for Fabric Refreshers may be difficult to achieve for some types of products or forms, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of each of these limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-1)

142. Comment: The VOC limits proposed for Graffiti Removers will be very difficult to achieve for some types of products or forms, especially with the elimination of chlorinated solvents, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of each of these limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-1)

143. Comment: The VOC limits proposed for Toilet/Urinal Care Products may be difficult to achieve for some types of products or forms, and could result in the unnecessary reformulation of some long lasting deodorizers, but CSPA members have expressed a willingness to work toward achieving these standards. We ask

that ARB schedule a technological review for one year prior to the effective date of each of these limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-1)

144. Comment: These VOC limits will be difficult to achieve for some types of wood cleaners, but CSPA members have expressed a willingness to work toward achieving these standards. We ask that ARB schedule a technological review for one year prior to the effective date of these limits to determine whether the standards have proven to be infeasible for some products or forms. (CSPA-1)

Agency Response for Comments 140 - 144: Prior to the effective date for each consumer products standard, staff will conduct a technology assessment to monitor manufacturers' progress in developing complying products by the effective date. While such technology assessments are typically conducted about one year prior to the effective date for each product category, staff will not absolutely commit to this timing because particular circumstances may arise for different product categories that would make it more appropriate to conduct the assessment on a different schedule (i.e., either before or after the one-year date.)

If a technology assessment demonstrates that manufacturers are unable to comply by the effective date, the staff will propose the appropriate modifications to the regulation. In addition, an individual manufacturer requiring more time to comply may seek an extended compliance date through the variance provision. Finally, staff will do its best to inform and educate companies about the new limits.

Miscellaneous Comments

145. Comment: CSPA is willing to continue working with ARB to assess the category of "Multipurpose Solvents." Multi-purpose solvents/removers represent an important category of products, especially in the household products sector, where multi-purpose products are necessary for various occasional, non-routine, applications. It is important that solvent products formulated and labeled for specific uses not be replaced in the market by generic packaged solvents or fuels, such as kerosene, gasoline or lamp fuels, that could be used for these applications. (CSPA-1)

Agency Response: Comment noted. Staff agreed to evaluate Multi-purpose Solvents along with development of the CONS-2 consumer product measures.

146. Comment: CSPA looks forward to receiving an updated and corrected version of the final data summaries from the CONS- I survey, and to working with

ARB staff to use the survey data to update and correct the consumer products VOC emissions inventory for California. Based on the original data summaries released in October, 2003, it is clear that the current inventory significantly overestimates emissions for most of these products. The 22 broad categories of products surveyed were reported to represent about 35 tons/day VOC emissions in the state, while the current California inventory estimates over 56 tons/day for those same categories. Even when “market adjustment" is made to account for unreported products, significant reductions in the estimated inventory should occur. We believe that these emissions reductions should be used to reduce the size of the "black box" reduction commitments for ARB in the State Implementation Plan adopted in 2003.

Agency Response: Staff plans to update the emission inventory with data obtained from the 2001 Survey in the first half of 2005. Survey data will be analyzed on a category by category basis to ensure that it is correct. The updated inventory will be used to determine reductions needed for future State Implementation Plans.

147. Comment: I'd like to support David Mallory's presentation where he talked about working on the solvent category review for Cons 2. And in going along with Richard Pearl (MagicAmer), we too believe in the MIR rules, and we would like to actually see that start as soon as possible. (Sherwin)

Agency Response: In the ISOR staff committed to conduct an assessment of the multi-function solvent category. The balance of this comment is not directed at the proposed amendments, however staff will evaluate using reactivity-based (MIR) control strategies.

148. Comment: The Alternative Control Plan (ACP) regulation was adopted 10 years ago, and it complements the ARB regulations which set specific VOC limits for product categories. The ACP is intended to provide manufacturers with flexibility and provide incentive for VOC reductions which go 'beyond compliance.' SCJ has utilized an ACP since 1995, and since then, the ARB has certified over five million pounds of excess VOC reductions by SCJ. Although SCJ is successfully using the ACP, other regulated entities are not doing so. SCJ believes that the ACP regulation is very much underutilized, and this is because there is no inherent "value" in excess emissions credits; and thus, there is insufficient market incentive. The ARB has set very aggressive VOC emissions reduction targets for consumer products by the year 2010. SCJ believes there is going to have to be collaboration by industry and the ARB on both traditional and innovative regulatory models in order to achieve the goals in the State Implementation Plan. As the ARB continues its review of additional VOC reductions for consumer products, SCJ would encourage the Board to reconsider the potential benefits of an enhanced ACP regulation. The goal would be both increased flexibility for manufacturers and - most importantly added incentives for formulating and marketing lower VOC product alternatives. (SCJ)

Agency Response: Although not directed at the proposed amendments, staff responds as follows. Staff agrees that the ACP Regulation is an important incentive for manufacturers to create low-VOC alternative products. Staff will consider whether changes to the ACP are needed.

149. Comment: Modified Definition of LVP-VOC -- The Council accepts the ARB's decision to retain the approach that allows for a "compound" with more than 12 carbon atoms or mixture comprised solely of "compounds" with more than 12 carbon atoms to be defined as a Low Vapor Pressure VOC (LVP-VOC).

As noted in our earlier comments most polymers used in adhesive and sealant products contain carbon and therefore meet the definition of a VOC. They are, however, solids with no measurable vapor pressure. Without the 12 carbon atoms definition, manufacturers would have been required to test these solid polymers simply to prove that they have no vapor pressure. (ASC-1)

Agency Response: Comment noted.

150. Comment: On January 7, 2004, and on March 24, 2004, CSPA filed detailed written comments on the ARB's two previous draft staff proposals. These comments are incorporated herein by express reference. (CSPA-1)

Agency Response: The commenter CSPA is referring to two letters that CSPA submitted before the start of the 45-day comment period. CSPA did not submit copies of these letters to the ARB during the 45-day comment period, so these letters are not included in the administrative record for this rulemaking action. In addition, the comments made in these earlier letters were made on preliminary drafts of the proposed amendments. The preliminary drafts were extensively revised as staff worked with industry to address their concerns. As a result, many of the comments in these earlier letters are simply not germane to the amendments that were ultimately proposed by staff. Moreover, industry views on some issues changed during the development of the regulation, so it is unclear which, if any, of these earlier comments still represent the commenter's ultimate position. CSPA submitted a very detailed comment letter during the 45-day comment period, and this letter included new comments as well as both verbatim and revised versions of germane comments made in their earlier letters. Staff therefore believes that it is appropriate to respond in detail to the comment letter submitted by CSPA during the 45-day comment period, and that it is unnecessary to respond to each of the many comments contained in their January 7, 2004 and March 24, 2004 comment letters.

B. 15-DAY COMMENTS

1. ADMINISTRATIVE REQUIREMENTS AND GENERAL COMMENTS

Most Restrictive Limit

151. Comment: ASPA Strongly Opposes Proposed Changes to the Most Restrictive Limit Provision -- ASPA supports ARB's clarification that the most restrictive limit provision only applies to regulated product categories. *See* Section 94512(a)(3). However, CSPA strongly opposes the proposed modification to this provision that undermines the effect of carefully developed product category definitions.

During the 15-day notice period the ARB proposed changes that significantly modify existing requirements of the most restrictive limit provision by eliminating the effect of exclusions of regulated product categories within the definitions of other product categories. This is a far reaching change, especially when made in addition to the extensive expansion of the Most Restrictive Limit provision to apply to claims on labeling outside of the Principal Display Panel.

Upon review, the proposal appears to subject many product categories to lower VOC limits immediately without proper feasibility review. ASPA's initial review indicates many categories may contain products that could be interpreted to be immediately subjected to lower VOC limits.

ASPA believes that the ARB should not have proposed such a sweeping change during the 15-day notice period, where significantly less stakeholder participation can occur due to reduced time for comment and review. This is especially inappropriate if this modification allows the ARB to make substantive changes in the future without proper commercial and technological feasibility review. Therefore, ASPA urges ARB to withdraw this (and) consider it during the ongoing CONS-2 Rulemaking process where proper review and comment can occur. (ASPA-2)

Agency Response: Staff believes that adequate time was provided to comment on this modification. The basic concept embodied in this language (although not the specific language itself) was clearly set forth in Attachment B to Resolution 04-18 and was made available at the June 24, 2004 public hearing. Numerous discussions with the commenters on the concept took place between June 24, 2004 and February 17, 2005, when the 15-day notice was issued. Industry therefore had about 8 months to consider this concept before the formal 15-day comment period began. While specific language was not available until

the 15-day comment period, staff does not believe that this is a “fairness” issue because it is the concept that the commenters dislike, not the specific language which embodies the concept.

Moreover, the proposed language does not represent a new interpretation but simply clarifies how the ARB has interpreted the regulations since their inception over a decade ago. It was proposed because staff was concerned that some industry members did not understand this interpretation. The proposed language clarifies ARB staff’s long-standing interpretation of how the “most restrictive limit” provision interacts with some of the definitions set forth in section 94508(a) of the consumer products regulation. Some of the definitions for particular product categories state that a defined product category “does not include” one or more other product categories. For example, the definition of "Spot Remover" states: “Spot Remover” does not include “Dry Cleaning Fluid,” “Laundry Prewash,” “Carpet and Upholstery Cleaner,” or “Multi-purpose Solvent.” Some individuals may not understand that the “most restrictive limit” provision applies to a product that meets such a definition but also represents on its label that it may be used as, or is suitable for use as, a consumer product that is excluded from the product definition. For example, they may not understand that the “most restrictive limit” provision applies to a product that meets the definition of a “Spot Remover,” but also represents on its principal display panel that it may be used as a “Carpet and Upholstery Cleaner.”

The ARB staff’s long-standing interpretation has been that the “most restrictive limit” provision does apply in this situation, such that a product is subject to the lowest VOC limit for any product category for which such representations are made, even if that product category is excluded from the definition. In the example discussed above, a non-aerosol “Spot Remover” (which has an 8 percent VOC limit) which represents on its principal display panel that it may be used as ready-to-use “Carpet and Upholstery Cleaner” (which has a 3 percent VOC limit), would be subject to the 3 percent VOC limit. The proposed modifications clarify that the “most restrictive limit” provision applies in the situations discussed above. Finally, no feasibility problems should result from the modifications because they just explain how the regulations are already interpreted.

152. Comment: CSPA Strongly Opposes Proposed Modifications to the Most Restrictive Limit Provision in Section 94512(a)(3) -- CSPA Supports ARB's clarification that the most restrictive limit provision only applies to regulated product categories. *See* Section 94512(a)(3). However, CSPA strongly opposes the proposed modification to this provision that appears to unfairly modify the effect of definitions for a wide range of product categories that ARB developed during the past 15 years.

ARB presented its proposed modifications to Section 94512(a)(3) in writing for the first time during this 15-day notice period. The proposal

significantly modifies existing requirements of the most restrictive limit provision by eliminating the effect of exclusions of regulated product categories within the definitions of other product categories. This is a far-reaching change, especially when made in addition to the extensive expansion of the Most Restrictive Limit provision to apply to claims on labeling outside of the Principal Display Panel. Unlike all other aspects of the CONS-1 Rulemaking, in this limited instance, CSPA believes that ARB did not prove reasonable or adequate opportunity for interested stakeholders to review the proposal and provide thorough comment on it.

Based upon CSPA's initial review, the proposed modification appears to subject many product categories to lower VOC limits immediately without any evidence of commercial and technological feasibility and necessity, and without adequate data as unambiguously required by state law. In effect, the ARB proposes to "move the goal posts" without meeting its requisite burden of proof that this regulatory provision complies with these key statutory requirements.

CSPA's initial review indicates many categories may contain products that could be interpreted to be immediately subjected to lower VOC limits. This initial list includes, but is not limited to, the following product categories:

- Spot Removers (may be subject to the lower Carpet and Upholstery Cleaner limits);
- Fabric Protectants (may be subject to the lower Footwear and Leather Care limits);
- Electrical Cleaners (may be subject to the lower General Purpose Degreasers limit);
- Paint Removers (may be subject to the lower Graffiti Remover limit and/or lower Metal Polish limit if metal substrates are mentioned);
- Bathroom and Tile Cleaners (may be subject to the lower Toilet/Urinal Care limit);
- Dusting Aids (may be subject to the lower Wood Cleaner limits);
- Furniture Maintenance Products (may be subject to the lower Wood Cleaner limits),
- Floor Wax Strippers (may be subject to the lower Wood Cleaner limits), and
- Floor Wax or Polishes (may be subject to the lower Wood Cleaner limits).

CSPA believes that it is fundamentally unfair for ARB to propose such a sweeping modification during the 15-day notice period. Moreover, if CSPA's initial assessment is correct, the proposed modification may enable ARB to inappropriately side-step existing statutory requirement to ensure that regulatory standards for consumer products are commercially and technologically feasible and necessary. Therefore, CSPA urges the Board to withdraw this last-minute

proposal and direct ARB staff to engage in a full and fair discussion of the issue during the ongoing CONS-2 Rulemaking. (CSPA-3)

Agency Response: This comment is addressed in the response to the previous comment. In addition, almost all of the specific examples cited by the commenter include VOC limits that will become effective in the future. In each of those examples, companies will have ample time to evaluate their label claims to meet the most restrictive limit provisions.

153. Comment: Section 94512(a) Most Restrictive Limit -- While we understand the ARB's interest in ensuring that a product is regulated in the proper category and that emission reductions are obtained that are appropriate for the intended use of the product by the consumer, we find it troubling that the ARB has extended the claims that will be scrutinized to determine the "most restrictive limit" beyond those on the principal display panel. (We agree with the ARB decision that it should not extend beyond the label or container.)

Although we do not intend to further pursue our objections to this broadening of the ARB's control over claims at this time, and believe the additional changes made to this provision are positive, we do wish to note that we will be closely monitoring the impact of this provision on the ability of manufacturers to make truthful claims about their products. One of our major concerns is that the enforcement goals of the ARB not have the effect of unnecessarily preventing manufacturers from making truthful claims about their products that fully describe a product's attributes and uses without fear that they will trigger formulating limitations that are neither appropriate nor feasible. (CTFA-3)

Agency Response: This comment is addressed in the response to Comment No. 1.

154. Comment: Section 94512 - Most Restrictive Limit -- Despite the clarifications made to these provisions relating to FIFRA registered products and the rule that applies when the definition of one product category excludes the product definition of another category, this provision continues to be extremely problematic for the consumer products industry, particularly manufacturers of adhesives, sealants and caulks and removers for those products. We urge ARB staff to rescind this language and -continue to look for some compromise solution that responds to the agency's compliance concerns but still allows the consumer products industry some flexibility to discuss the "minor" or ancillary uses of certain products.

Even though limiting the 'product category review' to the product's container, packaging and affixed stickers, this provision still makes it impossible for consumers to learn of other, secondary uses of certain products. While the advertising and marketing claims focus on the primary use of a product on the

principal display panel, alternative or secondary uses of a product are also typically mentioned on other panels of the product or in accompanying sales or advertising literature. The ARB's proposal will have a censoring effect on the marketing of consumer products if the mention of such minor uses will automatically subject them to lower VOC standards.

Because this rule applies to all types of consumer products, except for general purpose cleaners and insecticide foggers, contact adhesives, adhesive removers, all other solvent-type products will be subject to this provision. This rule, a 'one size fits all' is not appropriate for the wide range of products that are covered under the consumer products rule. Personal care products are marketed in unique and different ways from adhesive products and adhesive products are marketed in different ways than other specialty products. This rule will affect some products more profoundly than others.

Historically, claims made on the principal display panel of the product have identified the consumer product category for regulatory purposes in California. Broadening this rule to include language on other labels on the container and the packaging will significantly change the manner in which consumer products are marketed.

This censoring effect on the marketing claims will also result in significant confusion to consumers. Because of this proposal, marketers will be forced to eliminate claims for minor or ancillary uses from labels in order to avoid being recategorized. Consumers who have used these products for specific uses in the past may not recognize a product with a new label and will begin searching the label for mention of the minor or ancillary use. Consumers now will be guessing at which product they could use to accomplish their goal. Such guesswork can and will lead to performance failures which will cost the manufacturer a customer and possibly require the defense of a lawsuit.

In addition, consumers looking for a product that historically was used for an ancillary use" might now begin to search the shelves for additional products that will serve the 'ancillary use." Marketers who study consumer behavior may then begin to expand product lines to meet this need. As a result, retail shelves could fill up with "single use" products, causing consumers to purchase more consumer products than they used to, increasing product use and consequently emissions. In addition, these added product lines will undoubtedly increase the waste generated by households as consumers discard more packaging.

NPCA urges the Air Resources Board to take a step back and re-evaluate this proposal. There is no reason to move forward on this proposal right now. There will be another rulemaking activity very soon which could allow continued discussion and negotiations with industry members. The Air Resources Board should reject this specific proposal. (NPCA-2)

Agency Response: This comment is addressed in the response to Comment No. 1. In addition, the commenter's concerns about a "censoring effect" are not well taken. The most restrictive limit provision is based on the straightforward concept that claims made on the product container or packaging should determine the applicable VOC limit. Manufacturers can make whatever claims they want on the product container as long as the product meets the applicable VOC limit or limits. Regarding the potential for emissions increases, the response to Comment No. 3 explains why the new most restrictive limit language will not result in emissions increases even if some consumers were to buy more single use products instead of a multiple use product. For the same reasons, increased waste will not occur if consumers initially purchase more single use products (i.e., consumers would simply take longer to use up the single use products and no overall increase in waste would occur.)

155. Comment: CSPA Supports the Modifications Clarifying How the Most Restrictive Limit Applies to Products Regulated by the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") -- CSPA supports ARB's action to clarify that insecticide foggers and lawn and garden insecticides are excluded from the most restrictive limit for insecticide products. Insecticide fogger products provide demonstrable public health benefits *(i.e.,* eliminating vermin and insects that may carry a variety of vector-borne diseases). As a practical matter, these products' labels generally state that they kill crawling bugs. Yet, it would be both unreasonable and technologically infeasible to apply the most restrictive limit for crawling bug insecticides *(i.e.,* the 20 percent standard) to insecticide fogger products. Therefore, CSPA believes that ARB's proposed modification is both reasonable and appropriate.

As pertains to "Lawn and Garden Insecticide" products, CSPA believe that ARB inadvertently omitted a necessary word in the modification of the definition for this category. Accordingly, CSPA urges ARB to make the following minor technical correction to better effectuate the ARB's clear intent to exclude this product category from inadvertently being subject to the standard set for other regulated insecticides. *(See* highlighted italicized word.)

> (88) "Lawn and Garden Insecticide" means an insecticide product labeled primarily to be used in household lawn and garden areas to protect plants from insects or other arthropods. Notwithstanding the requirements of section 94512(a) aerosol "Lawn and Garden Insecticides" may claim to kill *any* insects or other arthropods.

CSPA also supports ARB's action to clarify that products regulated by FIFRA have one additional year to comply with the changes to the most restrictive limit provision. These products are regulated strictly by both the U.S. Environmental Protection Agency ("EPA") and the California Department of Pesticide Regulation ("DPR"). Any change to a FIFRA-regulated product label must be approved by EPA. As a practical matter, this review process can take a

considerable amount of time to complete. Furthermore, this modification is consistent with the requirement of existing provisions set forth at Section 94509(a). Thus, it is reasonable and appropriate that ARB should include this modification.

However, CSPA urges ARB to make a necessary technical correction to ensure: (1) that the text of the revised regulation accurately reflects the agency's intention; and (2) internal consistency with the current text of the Consumer Products Regulations. ARB should use the word "products" instead of the word "insecticides" as follows:

94512. Administrative Requirements

(a) Most Restrictive Limit.

(1) Products Manufactured Before January 1, 2007, and FIFRA-registered ~~Insecticides~~ Products Manufactured Before January 1, 2008…

(2) Products Manufactured Before January 1, 2007, and FIFRA -registered ~~Insecticides~~ Products Manufactured Before January 1, 2008. ...

Currently, the existing regulatory text consistently uses the word "products" in reference to categories subject to FIFRA-registrations. *See* Section 94509(a) footnote [1]; Section 94509(d); and Section 94510(e). Consequently, this recommended revision will make the proposed modifications more consistent with ARB's existing regulatory language. (CSPA-3)

Agency Response: The suggested modification to "Lawn and Garden Insecticide" definition is unnecessary because there is no real difference between the proposed language and the language adopted by the ARB; they both mean the same thing.

Regarding the suggested modification to section 94512(a) (i.e., substituting the word "Products" for the word "Insecticides"), staff believes that this change is not appropriate. We believe that modifying the provision to include all FIFRA registered products is too broad. Judging the comments received from industry representatives, staff believes that the overwhelming majority of FIFRA registered products that may need to be relabeled and/or reformulated in light of the changes to the Most Restrictive Limit are insecticides. Industry members did not identify specific FIFRA registered products other than insecticides for which they were concerned about multiple claims making the products subject to multiple categories, thus necessitating relabeling and/or reformulation.

Product Dating and Labeling

156. Comment: Multi-Unit Packaging - Sections 94509(c)(2); 94512(b)(5) -- We support the modifications the ARB has made to the provisions for multi-unit packaging that allow manufacturers to use the date of assembly as an alternative to having to have the code for each enclosed product visible through the packaging, a practical impossibility in some situations.

Multi-unit packaging provides an important means by which manufacturers can combine products and offer consumers convenience and savings. The goal of the proposed multi-unit package provision is to address ARB concerns about keeping non-compliant products off store shelves after a sell-through period expires.

An unintended consequence of the current provision would be to require products that are not subject to sell-through limit and sold as multi-unit packages to embark on a burdensome and very complex labeling change involving private labelers, outside contract manufacturers, contract assembly warehouses and foreign pre-packaged good suppliers. The result of this huge effort in a limited case, would not significantly improve upon the information that ARB enforcement will gain with the administrative changes in this rulemaking.

To address this issue, CTFA requests that ARB consider the following language:

> "Manufacturers selling one or more individual consumer products in multi-unit package, subject to a VOC standard in Section 94509(a) and a sell-through limitation must indicate the "date of assembly" as defined in Section 94509(c)(D)(2) or list the date codes or dates of manufacture for the individual products on the multi-unit package if the date information is not readily observable without irreversibly disassembling any portion of the container or packaging."
>
> "Consumer products sold in a multi-unit package that are not subject to a sell-through limitation are not required to indicate the "date of assembly" or individual product date codes outside the multi-unit package, provided the manufacturer complies with Section 94512(c)(1)-(2) requiring current date code filing and notification of date code changes."

(CTFA-3)

Agency Response: In response to the commenter's concern, staff added language in section 94512(b)(5)(C) and 94509(c)(1)(D). This language specifies that manufacturers do not need to display any date on a multi-unit package if they are willing to forgo the three-year sell-through period (e.g., in situations

where the sell-through period is unnecessary because the individual product units comply with the VOC standards in effect when the multi-unit package is sold.) This is what the commenter asked the ARB to do. Staff did not use the exact language suggested by the commenter, however, because staff drafted alternative language that has greater clarity than the suggested language.

157. Comment: CSPA Does Not Object to the Modifications of the Current Date-coding Requirement, But Urges ARB to Change the Effective Date for the Revised Provision -- As a threshold matter, CSPA recognizes the ARB Enforcement Division's need to determine the date of manufacture for products that are subject to VOC standards. As stated in the above referenced June 2004 comments, the proposed modification will likely impose very significant costs burdens on product manufacturers. Notwithstanding this concern, CSPA does not object to the proposed modification since it will ensure that ARB can clearly identify multi-unit packages that contain products that are nearing the end of the applicable limitations set by Section 94509(c).

However, for the sake of internal consistency and to eliminate potential confusion, CSPA urges ARB to change the effective date for the modification to the date-code provision from January 1, 2006, to December 31, 2006. This new date corresponds to the effective date for majority of the new VOC standards set by the CONS-1 Rulemaking. Accordingly, CSPA urges ARB to amend Section 94509(c)(1)(D)(1) as follows:

> (D) Products contained in multi-unit packages, as specified below:
>
> 1 .Subsection (c) does not apply to any individual consumer products unit contained within a multi-unit package that is produced or assembled after ~~January 1, 2006~~ December 31, 2006, where the multi-unit package does not display the date(s) or date-code(s) of the individual product units, or display the date of assembly, such that the displayed information is not readily observable without irreversibly disassembling any portion of the container or packaging.

CSPA also urges ARB to make corresponding revisions to Sections 94512(b)(4)-(5) as follows:

> (4) Except as otherwise provided in subsection (b)(5), for products manufactured on or after ~~January 1, 2006~~ December 31, 2006, the date or code shall be displayed on the product container such that it is readily observable without irreversibly disassembling any portion of the product container or packaging. For the purposes off this subsection, information may be displayed on the bottom of a container as long as it is clearly legible without removing any product packaging.

(5) *Products Sold in Multi-unit Packages.*

(A) Products sold, supplied, or offered for sale in multi-unit packages are not required to comply with subsection (b)(4).

(B) If a multi-unit package does not comply with subsection (b)(4), the "sell through" provisions of section 94509(c)(1) shall not apply to the individual product units contained within the multi-unit package. In other words, if any multi-unit package produced or assembled after ~~January 1, 2006~~ *December 31,* 2006, does not display the date(s) or date-code(s) of the product units, such that the displayed information is readily observable without irreversibly disassembling any portion of the container or packaging, the individual product units shall be subject to the VOC standards in effect when the multi-unit package is sold, supplied, or offered for sale, regardless of the date on which the product units were manufactured.

In addition to ensuring internal consistency with the effective date for almost all new VOC standards established by the CONS-I Rulemaking, there is another compelling practical justification for making this revision: the new regulation will not take final effect until April 2005 (at the earliest). As a consequence, companies would have only a mere eight months (at the most) to implement procedures to implement this significant new administrative requirement. CSPA believes that this is an inadequate amount of time. Therefore, ARB should provide an additional 12 months to ensure a more reasonable time for compliance and to eliminate potential confusion caused by multiple effective dates in the CONS-1 Rulemaking. (CSPA-3)

Agency Response: Staff did not make the changes suggested by the commenter because staff believes that the January 1, 2006, date provides ample lead time for manufacturers to comply. The commenter's concern about having only "8 months" to comply (i.e., from the date the regulations are approved by OAL and become legally effective) is not convincing because they have known about this proposed requirement ever since the Board approved it at the public hearing in June 2004. Although the Board's June 2004 approval did not constitute final administrative action to adopt the proposal, prudence would suggest that manufacturers should begin thinking about how they would comply then and not wait until the regulations become legally effective many months later.

Further, staff does not believe that any "confusion" will be caused by the January 1, 2006, date since there are already many different effective dates in

the regulations. The effective dates in the regulations have always varied depending on the regulated product category and the justification for the revision. The effective date for the modified Product Dating provision is not related to effective dates for regulated product categories. It is therefore unlikely that industry will simply make unwarranted assumptions about the effective date for this particular provision without reading the regulations.

Finally, the January 1, 2006 date is consistent with the existing provision in section 94512(b)(3) that requires products to be dated 12 months prior to the effective dates of VOC limits.

158. Comment: ASPA Does Not Object to the Modifications of the Current Date-coding Requirement -- ASPA understands the ARB Enforcement Division's need to determine the date of manufacture for products that are subject to VOC standards. While the proposed changes may pose significant costs to ASPA members, we do not object to the proposed modification because it creates a requirement that enables the ARB to clearly identify multi-unit packages that contain products that are nearing the end of the applicable limitations set by Section 94509(c).

However, to ensure consistency, ASPA urges ARB to shift the effective date for this revision from January 1, 2006, to December 31, 2006. This new date would correspond to the effective date for many of the new VOC standards set by the CONS- I Rulemaking.

This change is also a needed practical revision of the CONS- I Rulemaking. The new regulation will likely not take final effect until April 2005. As a result, companies would only have eight months to develop and put in place procedures to ensure compliance with this new administrative requirement. Therefore, ASPA believes that an additional 12 months is reasonable and will reduce this burden and reduce potential confusion caused by multiple effective dates in the CONS-1 Rulemaking.

ASPA urges the ARB to shift the effective date for the modification to the date-code requirement so that they would become effective on December 31, 2006. (ASPA-2)

Agency Response: This comment is addressed in the responses to the two previous comments.

159. Comment: There is no definition for "Multi-unit Packages" yet there is a specific section related to date code requirements for these sales units. NPCA suggests the following language for this term: a "Multi-unit Package" means a package that includes a combination of two or more identical or dissimilar finished goods, assembled to be sold as a single unit at retail." (NPCA-2)

Agency Response: Staff believes it is unnecessary to add a definition for "Multi-unit Packages" because it seems clear that a “Multi-unit Package” contains more than one unit of product. Staff will consider adding a definition for Multi-unit Packages at the next rulemaking action for consumer products, if further experience suggests that some ambiguity exists and a definition would therefore be helpful.

Notification of Sell-through of Products

160. Comment: Section 94509(c)(2) Notification for products sold during the sell-through period -- The ARB enforcement staff has expressed concerns that non-compliance products may remain on store shelves because retailers or other distributors may not realize that a sell-through period has expired. To reduce the likelihood of this occurring, the ARB has added a provision requiring notification to distributors when a product is transferred within six months of the expiration of a sell-through.

While we believe the likelihood of such an occurrence is minimal and ARB enforcement measures are adequate to deal with such situations, the original provision limiting application of the notification requirement to a six-month period before the end of the sell-through period and the new provision limiting its application to products with a VOC standard effective on or after December 31, 2004 make this requirement acceptable.

However, it must be noted that enforcement responsibilities of the ARB should not result in excessive administrative burdens on manufacturers and distributors. There are very strong incentives to avoid situations where non-compliant products are still in distribution in California. We believe the system works best when industry is allowed to develop its own mechanisms for avoiding violations rather than being forced to follow a government-prescribed system. We hope that the ARB will allow such flexibility rather than continuing to increase the administrative burdens on manufacturers in the future. (CTFA-3)

Agency Response: The sell-through notification is required only if the product is sold or supplied to a distributor or retailer within the last six months of the sell-through period and the product does not comply with the lowest applicable VOC limit. This protects the manufacturers as they have documentation of notification. The distributors and retailers are also protected from inadvertently selling non-compliant products or being stuck with products they cannot sell. Manufacturers and distributors should be familiar with their customers and the amount of product they sell and in what time frame. By not manufacturing or distributing excess amounts of product, sell-through notification should not be an issue. This provision should not place an undue administrative burden on most companies because the majority of products are sold well before

the final six months of the sell-through period and many companies already have notification processes in place. For requirements that may be included in the regulations in the future, ARB staff is committed to working with industry to minimize any administrative burdens that may result.

161. Comment: ASPA Does Not Oppose Changes to Notification Provision -- ASPA members do not oppose the requirement to provide notification to distributors and retailers if a non-complying product is shipped into California during the final six months of its sell-through period. ASPA believes that it is both reasonable and appropriate that ARB should establish this clear effective date for this new requirement. (ASPA-2)

Agency Response: Comment noted.

162. Comment: CSPA Supports the Clarification that the Requirements of Sec. 94509(c)(2)(D) Only Apply to Products Subject to VOC Limits with an Effective Date On or After December 31, 2004 -- As stated in our written comments dated June 22, 2004, CSPA members do not oppose a requirement to provide notification to distributors and retailers if a non-complying product is shipped into California during the final six months of its sell-through period. As originally drafted, this was the only proposed administrative provision modification for which no effective date was given. As a consequence, this requirement would have taken effect as soon as the Office of Administrative Law approves the final rule. As a practical matter, responsible parties cannot establish such detailed compliance assurance systems retroactively. Therefore, CSPA believes that it is both reasonable and appropriate that ARB should establish a clear *prospective* "bright line" effective date for this new requirement. Accordingly, CSPA strongly supports this proposed modification. (CSPA-3)

Agency Response: Comment noted.

163. Comment: Section 94509(d) - Notification of Sell-through of Products -- In this section, ARB added several sections relating to contact adhesives and adhesive removers and proposes to require written notification from any person who sells or supplies regulated consumer products to the purchaser of the date that the sell-through period will end. While there are some limitations on the application of this requirement, it remains a paperwork burden for industry with no real benefit for air quality.

The new provisions do not address concerns argued about these requirements during the primary discussions of this rulemaking. It remains a burdensome, needless activity that is being imposed upon the industry because the agency refuses to aggressively enforce existing regulations. The ARB's concerns, as discussed in the Initial Statement of Reasons do not support the imposition of needless notification requirements. The Air Resources Board

should address these concerns by utilizing its compliance and enforcement authority with determination, not imposing additional requirements.

Adoption of this provision could still result in the constant flow of such "expiration notices" to distributors and retailers to the extent that these communications become meaningless. Good corporate citizens who are interested in maintaining good customer relations already provide similar notices in some fashion. There is no pressing need to adopt this provision. In addition, this requirement only steals resources from research and development of new lower VOC consumer products.

Specifically, with regard to multi-unit packages (D), the "produced or assembled" date should correspond to the effective date of the proposed standards. This newly proposed amendment indicates that the sale date of the multi-unit package is any date after January 1, 2006 while the effective date of the newly amended VOC standards is December 31, 2006. ARB should change this date to December 31, 2006. (NPCA-2)

Agency Response: Most of the issues raised by the commenter are addressed in the rationale for this proposed provision, which can be found on pages V-50 of the ISOR, and in the response to Comments No. 25 - 26. As mentioned there, this provision should not place an undue administrative burden or costs on most companies because the majority of products manufactured before the effective date for a new standard are sold well before the final six months of the sell-through period, and many companies which do sell products within the final six months already notify their purchasers about the end of the sell-through period. The commenter acknowledges this when stating that “Good corporate citizens who are interested in maintaining good customer relations already provide similar notices in some fashion.” Manufacturers can also minimize their notifications and the associated cost by not manufacturing excess amounts of product that may take up to three years to sell.

Unfortunately, the ARB’s enforcement experience is that some manufacturers and distributors have continued to sell products manufactured prior to the effective date of the VOC limit up right to the end of the sell-through period. The provision is therefore necessary to minimize the number of retailers and distributors that are either stuck with products they cannot sell, or are unknowingly selling non-compliant products. The provision should benefit air quality because it should reduce the number of “mistakes” made by retailers and distributors who inadvertently sell non-compliant high-VOC products. The ARB Enforcement Division does aggressively enforce existing regulations and will continue to do so. But it is simply not reasonable to expect ARB inspectors to effectively monitor the sale of thousands of products to thousands of retailers and distributors in California. It is far more efficient to prevent non-compliant product from being sold in the first place instead of taking enforcement action after a violation has already occurred.

Finally, the commenter's request on multi-unit packaging language is addressed in the response to Comment No. 156.

Shortened Phase-Out Schedule for Para-dichlorobenzene, Perchloroethylene, Methylene Chloride, and Trichloroethylene

164. Comment: The County Sanitation Districts of Los Angeles County (Districts) strongly support the modified regulatory language, particularly as it pertains to the effective date of PDCB prohibition on the sale of PDCB toilet/urinal care products and as it pertains to the effective date on the prohibition of sale of contact adhesives, electronic cleaners, footware/leather care products, and general purpose degreasers that contain methylene chloride, perchloroethylene, or trichloroethylene.

As detailed in previous comment letters to the Air Resources Board, the Districts are concerned about PDCB, methylene chloride, perchloroethylene, and trichloroethylene for both air and water quality reasons. Use of consumer produces containing these chemicals can contribute to cancer risk at the Districts wasterwater treatment plants and can contribute to excess concentrations of these chemicals in the effluent of the Districts wastewater treatment plans. The modified regulatory language moves up by one year the dates at which prohibitions occur on the manufacture and sale of toilet/urinal care products containing PDCB, and moves up by one year the dates at which prohibitions occur on the manufacture and sale of contact adhesives, electronic cleaners, footwear/leather card products, and general purpose degreasers that contain methylene chloride, perchloroethylene, or trichloroethylene. The Districts therefore support the modified regulatory language because it will result in quicker realization of water quality and air quality improvements. (CSCLAC-2)

165. Comment: As stated in our public testimony at the June hearing, CSPA supports the proposed change in the effective date for the prohibition on the use of para-dichlorobenzene in solid air fresheners and toilet/urinal care products. ARB's amendment may impose a difficult challenge for our member companies that manufacture or market these types of products. However, since most of these companies already manufacture and/or distribute alternative products that are acceptable to all the markets they serve, most (if not all) will be able to phase-out the sale of products containing para-dichlorobenzene before the new December 31, 2005 compliance date. (CSPA-3)

166. Comment: CSPA members are willing to accept the prohibition after December 31, 2005, on the use of certain chlorinated solvents in these product categories, even though this new effective date will make reformulations to meet the VOC limits imposed on these products much more difficult. However, CSPA

reiterates the necessity for ARB to exercise its best efforts to assure that alternative VOC-exempt solvents are approved for use in California so that this new prohibition will not make the VOC limits for these products technologically or commercially infeasible. (CSPA-3)

167. Comment : CSPA supports ARB's decision to retain the originally proposed effective date for the prohibition on the use of enumerated chlorinated chemical compounds in Adhesive Removers, Electrical Cleaners and Graffiti Removers. The reformulation of these products represent a significant challenge and cannot be accomplished in a shorter time frame. As a result of ARB's action to eliminate the use of chlorinated solvents, it will be exceedingly difficult for manufacturers to reformulate these products to achieve the new technology-forcing VOC limits proposed for these product categories by December 31, 2006. Nonetheless, CSPA members are committed to working with ARB to achieve these very stringent standards. (CSPA-3)

Agency Response to Comments No. 164 - 167: In response to comments received during the 45-day comment period, the ARB proposed to accelerate the para-dichlorobenzene phase-out schedule by one year (see section 94509(o) of modified regulatory language). After further review with industry regarding the perchloroethylene, methylene chloride, and trichloroethylene prohibition schedule, the phase-out was also proposed to be accelerated by one year for four product categories: Contact Adhesives, Electronic Cleaners, Footwear or Leather Care Products, and General Purpose Degreasers. For these categories, staff found after further investigation that alternative reformulation technologies are readily available and that an accelerated phase-out schedule was feasible.

The originally proposed (non-accelerated) phase-out schedule was retained for three product categories: Adhesive Removers, Electrical Cleaners, and Graffiti Removers. (see sections 94509(m) and (n) of modified regulatory language). Staff found that research and development efforts to develop alternatives in these three categories would take more time and that that the originally proposed prohibition date of December 31, 2006 was necessary.

Regarding VOC exemptions for solvents and other compounds, California has a separate process and does not automatically exempt a compound after U.S. EPA has done so. Petitions for several compounds were received after the June 2004 Board hearing and are currently under review by ARB staff. If new compounds are exempted this will provide manufacturers with additional flexibility and may make it easier for them to achieve the VOC limits. Regardless of whether the ARB ultimately determines that these compounds should be exempted, however, the proposed limits for all product categories are feasible even if no additional compounds are exempted from the VOC definition. In other words, the staff determined that all proposed VOC limits are technologically and commercial feasible based on currently available technologies.

ATCM for Para-dichlorobenzene

168. Comment: The office of Environmental Health Hazard Assessment (OEEHA) is responsible for providing risk managers in state and local government agencies with toxicological and medical information relevant to decisions involving public health. State agency users of such information include all boards and departments within the California Environmental Protection Agency, as well as the Department of Health Services, the Department of Food and Agriculture, the Office of Emergency Services, the Department of Fish and Game, and the Department of Justice. The OEHHA also works with Federal agencies, the scientific community, industry and the general public on issues of environmental as well as public health.

The OEHHA has reviewed the document "Supplemental Analysis Regarding the Air Resources Board's Proposed Airborne Toxic Control Measure for Para-dichlorobenzene" prepared by the Stationary Source Division of the Air Resources Board (ARB). Para-dichlorobenzene (PDCB) is listed as a Federal Hazardous Air Pollutant (HAP), a California Toxic Air Contaminant (TAC), and a substance known to the state of California to cause cancer under Proposition 65. PDCB has also been listed as being "reasonably anticipated" to be a human carcinogen by the National Toxicology Program. OEHHA has found the information on PDCB carcinogenicity and the evaluations of previous PDCB risk assessments contained in the document to be scientifically accurate and correct. (OEHHA-2)

Agency Response: Comment noted.

General Comments

169. Comment: For the most part the rule revisions will contribute to further VOC reductions in California without creating additional burdens to adhesive and sealant manufacturers. (ASC-2)

Agency Response: Comment noted.

2. COMMENTS ON SPECIFIC CATEGORIES

Adhesive Remover

170. Comment: The ARB is proposing to establish four subcategories of adhesive removers: Wallpaper and Flooring Adhesive Remover, General Purpose Adhesive Remover, and Specialty Adhesive Remover with VOC limits of 5 percent (5%). 20 percent (20%), 50 percent (50%), and 70 percent (70%), respectively. CSPA reiterates our support for this subcategorization only if exclusions are provided for "Label Removers" and products used exclusively for vehicle refinishing. As demonstrated in February 2004 during CSPA's technical presentation for ARB staff, these two small subcategories of adhesive removers cannot be reformulated to meet the VOC limits proposed, and those limits are therefore not technologically feasible. Consequently, CSPA urges ARB to assess the potential to set reactivity-based limits for these two small subcategories based on Maximum Incremental Reactivity (MIR), similar to the Aerosol Coating Products Regulation. (CSPA-3)

Agency Response: This comment is addressed in the response to Comments No. 71 - 78**,** which explains why ARB staff does not believe it is necessary to exclude for "Label Removers" and products used for vehicle refinishing. In addition, it is not necessary to specify reactivity-based limits for these subcategories because staff believes the proposed mass-based limits are feasible.

171. Comment: 3M is pleased that the proposal for adhesive removers includes subcategories that reflect that different amounts of VOCs are needed to remove different types of adhesives. (3M)

Agency Response: Comment noted. However, this Comment is not directed at modifications made during the 15-day comment period.

172. Comment: We recommend that cyanoacrylate adhesive removers be regulated with the Gasket or Thread Locking Adhesive Removers, not with the General Purpose Adhesive Removers.

Cyanoacrylate adhesives are similar to thread locking compounds in that (1) the curing of both is inhibited by the presence of oxygen and (2) both have similar molecular weights and crosslink densities after cure. Consequently, the materials used to remove them tend to be similar.

3M proposes that the adhesive remover definitions be edited as follows:

> (2B) "Gasket, ~~or~~ Thread Locking, or Cyanoacrylate Adhesive Remover" means a product designed or labeled to remove gaskets, ~~or~~ thread locking adhesives, or cyanoacrylate adhesives. Products labeled for dual use as a paint stripper and gasket remover and/or thread locking adhesive remover and/or cyanoacrylate adhesive remover are considered "Gasket, ~~or~~ Thread Locking, or Cyanoacrylate Adhesive Remover."
>
> (2C) "General Purpose Adhesive Remover" means a product designed or labeled to remove ~~cyanoacrylate adhesives as well as~~ non-reactive adhesives or residue from a variety of substrates....

(3M)

173. Comment: Gasket or Thread Locking Adhesive Remover: add the word "cyanoacrylates " to the product category so that it becomes "Gasket or Thread Locking and Cyanoacrylate Adhesive Remover" and add this to the definition so that it becomes "a product designed or labeled to remove gaskets or thread locking adhesives or cyanoacrylate adhesive . ....."

The justification for this change is that cyanoacrylates are similar to thread locking compounds because the curing of both is inhibited by the presence of oxygen. Consequently, the molecular weight and crosslink density of both after cure are similar, Therefore, the material used to remove them also tend to be similar. (NPCA-2)

Agency Response to Comments No. 172 - 173: These Comments are not directed at modifications made during the 15-day comment period. With regard to the issues raised in these comments, however, staff acknowledged in the ISOR that cyanoacrylate adhesives are reactive crosslinking adhesives. However, because these types of adhesives are readily removed with low-VOC products, to achieve the maximum feasible reduction staff included the cyanoacrylate adhesive removers with the General Purpose Adhesive Removers (VOC limit of 20 percent), instead of Gasket or thread Locking Adhesive Remover (50 percent VOC limit). Staff also noted in the ISOR that users of cyanoacrylate adhesives (“super glues”) generally consider these products as general purpose adhesives. For these reasons the proposed modifications are not necessary.

174. Comment: While 3M supports the ARB's proposal to subcategorize adhesive removers, as well as the ARB's proposal to ban chlorinated solvents in adhesive removers, 3M is very concerned with ARB's proposed VOC standard for Specialty Adhesive Removers. The ARB is proposing a standard of 70% that cannot be technically achieved for automotive adhesive removers.

On January 7 and March 24, 2004, 3M commented on proposed definitions and standards for adhesive removers. At that time, we explained that adhesive removers for automotive applications should be exempted from any VOC standard. Briefly, 3M concerns as restated from those comments are

- Automotive adhesive removers should be exempt from regulation because they need 100% VOC to achieve the careful balance between solvating power and evaporation rate, while at the same time meeting the requirements of not compromising or damaging substrates and of leaving no residue; and

- There is regulatory precedent in California (specifically in district Adhesive rules) for exempting stripping of cured adhesives from VOC standards.

On February 11, 2004, 3M presented technical information on adhesive removers to ARB staff. At that time, we explained the technical limitations in developing adhesive removers for automotive applications. Briefly, 3M's concerns as restated from that presentation are

- Automotive adhesive removers must solubilize a variety of adhesives, must not damage the surface, must leave no residue, and must allow future application of coatings to the cleaned surface; and

- Common VOC replacement materials (e.g., microemulsions, acetone, acetates, water-based cleaners) do not perform as needed.

As stated in our previous comments, 3M further investigated our options for VOC reductions in adhesive removers. We formulated some test products using 20% acetone to determine whether we could develop effective, lower-VOC (80% VOC) adhesive removers. Our attempts were unsuccessful. The lower-VOC products damaged a variety of automotive substrates, including polycarbonate, ABS, acrylic, and automotive paint. Likewise, we experimented with LVP-VOCs as an option for lowering the VOC content of our automotive adhesive removers and confirmed that they do not evaporate fast enough. In addition, LVP-VOCs leave a residue that requires subsequent wiping with a packaged solvent (VOC) to fully clean the surface.

3M visited the ARB on March 30, 2004, and demonstrated to ARB staff the technical limitations associated with lower-VOC adhesive removers in automotive applications. It was our impression at that time that ARB staff gained an understanding of the need for special consideration for adhesive removers used in automotive applications.

3M continues to request that the ARB exempt automotive adhesive removers from any VOC standards. 3M asks that the ARB make the following changes to the proposed definitions and standards for adhesive removers:

> "Specialty Adhesive Remover" means a product designed to remove reactive adhesives from a variety of substrates. Reactive adhesives include adhesives that require a hardener or catalyst in order for the bond to occur. Examples of reactive adhesives include, but are not limited to: epoxies; urethanes; silicones. "Specialty Adhesive Remover" does not include "Gasket, ~~or~~ Thread Locking, or Cyanoacrylate Adhesive Remover~~,~~" or "Automotive Adhesive Remover."
>
> "Automotive Adhesive Remover" means a product labeled primarily for the removal of cured adhesives in the repair, refinishing, and maintenance of automobiles, trucks, airplanes, motorcycles, boats, ships, and other similar vehicles.

These changes would exempt automotive adhesive removers from applicable VOC standards by excluding them from the definition of Specialty Adhesive Removers. (3M)

175. Comment: With regard to this category, NPCA also urges the Air Resources Board to create an exemption for adhesive removers used in automotive applications. In our comments filed June 23, 2004 on this issue, NPCA discussed the fact that negotiations on this category were still continuing in the weeks prior to the ARB Hearing. Industry was hopeful that we were close to reaching an agreement with ARB staff regarding this very category (see NPCA comments filed June 23, 2004). Instead of bringing these discussions to its logical end, the ARB halted negotiations and "promised" to continue to work on this category into the next round of rulemaking (CONS-2). The category and the proposed limit, however, would remain as it was last proposed to industry. Again, NPCA argues that this practice is inappropriate and that if this category will again be the subject of further discussions during CONS-2, it should be exempted now. Allowing the proposed standards to become final for this category is inappropriate and it should be exempted now so that additional, meaningful discussions can be commenced. (NPCA-2)

176. Comment: One area that does remain a concern to ASC and its members is in the area of adhesive removers used in automotive applications. ASC continues to believe that ARB's proposed VOC standard of 70% for Specialty Adhesive Removers cannot accommodate automotive adhesive removers. ASC and it members continue to maintain that these products should be exempted from the rule.

On March 22, 2004, ASC commented on the proposed definitions for adhesive removers and while supporting the sub-categorization of these

products, it noted that it is not technically feasible to presently include automotive adhesive removers in the rule.

Later that month ASC staff attended a demonstration conducted by 3M personnel for ARB staff. During that meeting the technical limitations associated with lower VOC automotive adhesive removers was clearly established. In a number of tests on a variety of automotive substrates, the finishes were significantly damaged when lower VOC (80%) adhesive removers were applied.

During a June 9, 2004, phone conference ARB staff acknowledged that there continued to be challenges with the automotive adhesive removers and the Specialty Adhesive Remover category. It was agreed that while those automotive products would remain in that category for the present time, both industry and the agency would continue to pursue alternative limits and definitions for the automotive adhesive remover category (see ASC June 22, 2004 comments). We believe those continued discussions should begin soon. (ASC-2)

Agency Response to Comments 174 - 176: These Comments are not directed at modifications made during the 15-day comment period. However, the issues raised in these comments are addressed in the response to Comment No. 71 - 78 and in the ISOR**.** This response and the ISOR explain why ARB staff does not believe it is necessary to exclude products used for vehicle refinishing (i.e., adhesive removers used in automotive applications). Quite simply, staff's best engineering judgement strongly indicates that the limits are feasible for all Adhesive Remover subcategories. Although the ISOR establishes the technological and commercial feasibility of each limit, staff has committed to a further technical assessment prior to the limits becoming effective.

177. Comment: Currently, adhesives sold in containers of 1 fluid ounce or less are exempt from the VOC limits of the Consumer Products Rule. This exemption encourages the purchase and use of small quantities of product, thus lowering VOC emissions and reducing waste. Including adhesive removers in this small volume exemption would extend those benefits. As such, 3M proposes that section 94510(i) be amended as follows:

> (i) The VOC limits specified in Section 94509(a) shall not apply to adhesives or adhesive removers sold in containers of I fluid ounce or less.

(3M)

Agency Response: This Comment is neither directed at the February 7, 2005 15-Day Notice, nor the amendments contained in the ISOR proposed at the June 24, 2004, hearing.

Fabric Refresher

178. Comment: We note that Section 94508(a)(52) of the CARB proposal which limits volatile organic compound (VOC) emissions from the fabric refresher product category, separately excludes "disinfectants" and "sanitizers" from the product category. The sanitizer definition is limited to the "Fabric Refresher" product category.

In our view, this provision may be misread as establishing an unintended distinction between disinfectants and sanitizers generally for the purpose of the California Consumer Products Regulation (CCPR). No distinction is warranted. In fact, both types of substances are regulated by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA, 7 U.S.C. 136 *et seq.* as antimicrobial pesticides. The technical difference between these two pesticides within FIFRA relates only to their level of efficacy in killing microbes and should not be relevant to the CCPR. Accordingly, we recommend that the Section 94508(a)(39) "Disinfectant" product category be revised to make clear that it also covers products registered as sanitizers under FIFRA. (K&H)

Agency Response: Staff disagrees and finds that it is appropriate to exclude both sanitizers and disinfectants from the fabric refresher definition (as requested by the commenter) because this makes it quite clear that both types of products are excluded.

Wood Cleaner

179. Comment: CSPA supports ARB's narrowly-tailored modification to the definition of "Wood Cleaner" to expressly exclude "Floor Polish or Wax." As a practical matter, the labels for many floor polish and floor wax products may include an ancillary claim that these products may "clean" floors. These floor care products should remain subject to the "Floor Polish or Wax" limits that have been determined to be technologically and commercially feasible, and not subjected to the new VOC limit for Wood Cleaners. Therefore, it is both reasonable and appropriate for ARB to make this modification. (CSPA-3)

Agency Response: Comment noted.

3. OTHER COMMENTS

Technical and Commercial Feasibility

180. Comment: During CONS-1 rulemaking, fifteen new (VOC) limits were established. These new limits cover categories that are small and used for specific uses. The new limits will be technology forcing and affect members of the consumer products industry that have had little exposure to the Air Resources Board (ARB). For example the newly regulated categories of adhesive removers, anti-static sprays, electrical/electronic cleaners and graffiti removers are produced by a variety of manufacturers. Some of these manufacturers, especially for the Institutional & Industrial (I&I) arena are smaller companies, which have not worked with ARB before. Some of the smaller I&I companies may still not be aware of these changes. We would urge that ARB staff make efforts to inform and educate these regulated companies. Also, due to the technology forcing aspect of these limits, the typical one year review of these limits should be extremely comprehensive with the affected companies. (NAA)

181. Comment: The CONS- I Rulemaking establishes new volatile organic compound (VOC) limits for 15 categories of consumer products and makes other significant changes to the California Consumer Products Regulations. ASPA believes that the CONS-1 Rulemaking sets very stringent technology-forcing VOC standards for a broad range of consumer products, which include automotive specialty products. These standards will be challenging and require significant resources for our industry to achieve the required reductions. To ensure that that these standards are achievable in the set timeframes ASPA requests that the ARB conduct a technological review one year prior to the effective date for each of the effected product limits. (ASPA-2)

182. Comment: As CSPA stated in public testimony offered at the June 24th hearing, the CONS- I Rulemaking sets very stringent technology-forcing VOC standards for a broad range of consumer products. These standards will present a significant challenge for our industry and will require a substantial expenditure of money and effort to research and develop new product formulations to meet the new VOC limits. Therefore, CSPA reiterates our request that ARB schedule a technological review one year before the effective date for each of these new limits to determine whether the standards have proven to be feasible for all products and forms. (CSPA-3)

Agency Response to Comments No. 180 - 182: Prior to the effective date for each consumer products standard, staff will conduct a technology assessment to monitor manufacturers' progress in developing complying products by the effective date. While such technology assessments are typically

conducted about one year prior to the effective date for each product category, staff will not absolutely commit to this timing because particular circumstances may arise for different product categories that would make it more appropriate to conduct the assessment on a different schedule (i.e., either before or after the one-year date.)

If a technology assessment demonstrates that manufacturers are unable to comply by the effective date, the staff will propose the appropriate modifications to the regulation. In addition, an individual manufacturer requiring more time to comply may seek an extended compliance date through the variance provision. Finally, staff will do its best to inform and educate companies about the new limits.

183. Comment: We are becoming increasingly concerned about the cost-effectiveness of these measures, especially during the upcoming CONS-2 Rulemaking. The cost of product reformulation to meet future standards is increasing exponentially, especially as product categories are regulated several times. (ASPA-2)

184. Comment: We are disturbed about the low cost effectiveness of these regulations in controlling ozone formation. (CSPA-3)

Agency Response to Comments No. 183 - 184: These Comments are not directed at modifications made during the 15-day comment period. The cost-effectiveness of the proposed amendments compares favorably with that of many of ARB's recent regulatory actions, as discussed on pages VIII-175 and VIII-176 of the ISOR.

Notification of Small Companies

185. Comment: The CONS-1 rulemaking significantly changed the fundamental requirements by which the industry has been accustomed to following for compliance. The changes to the Most Restrictive Limit provision, Date-coding provision and addition of the new Sell-through expiration Notification provision will cause additional resources to be expended by the industry to ensure compliance. We believe that the ARB should consider additional resources to ensure that these changes are relayed to the industry. The specific categories being regulated in CONS-1, impacted a small number of companies. Thus companies not involved in CONS-1 which have previously been regulated and in compliance may not be aware of these very fundamental changes which could significantly effect their compliance. Notification of these changes on a large scale to the industry is imperative. (NAA)

186. Comment: In summary, NAA believes that due to changes which were made in this rulemaking, coupled with the narrow scope of the categories which are being regulated, that the ARB needs to increase their notification process and expand their technical review process. NAA supports the amendments to the Consumer Products Regulation. (NAA)

Agency Response to Comments No. 185 - 186: ARB staff will do its best to inform industry of the changes to the regulations. Staff will determine if enforcement advisories are appropriate, and if so will be sent out prior to the effective dates for each provision. Prior to the effective date for each consumer products standard, staff will conduct a technology assessment to monitor manufacturers' progress in developing complying products by the effective date.

Appendix A

Supplemental Analysis Regarding the Air Resouces Board's Proposed Airborne Toxic Control Measure for *Para*-dichlorobenzene

February 10, 2005