Attachment 1

Comments on California Air Resources Board
Initial Statement of Reasons
For Proposed 2006 Amendments to the California Consumer Products Regulations
Release Date: September 29, 2006

Date of CSPA Comments: November 14, 2006

The Consumer Specialty Products Association ("CSPA") has the following comments on the Initial Statement of Reasons, Technical Support Document, and other support documents relating to the initial amendments to the Consumer Products Regulations developed under the CONS-2 Control Measure of the California State Implementation Plan.[1]

Executive Summary

Pages ES-2 to ES-4: CSPA continues to believe that both the estimates for current and projected future VOC emissions from consumer products are significantly over-estimated. Recent survey data has shown significant reductions in VOC content for many categories, and much of the VOC content in some products is not emitted into ambient air, and instead has an alternative environmental fate (down-the-drain and biodegraded, combusted, etc.). A comprehensive review and update of the consumer products VOC emissions inventory is therefore needed.[2]

Pages ES-12 to ES-13: The explanation in this section regarding the need for the revision to the definition of which Electronic Cleaners are subject to the 75% VOC limit fails to note that this problem is due to a delay in the approval of exemption in California of VOC ingredients that are needed as replacements for HCFC-141b that are already exempted from the federal definition of VOC by U.S. EPA due to their negligible photochemical reactivity.[3] When these key 141b replacement ingredients are exempted in California, the 75% limit should be feasible for all products in the category.[4]

Page ES-14: CSPA fully supports the exemption of tertiary-butyl acetate as a VOC, and urges ARB to include this exemption in the VOC definition for consumer products in the 2007 Amendments to the Consumer Products Regulation.

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[1] The "Initial Statement of Reasons for the Proposed Amendments to the California Consumer Products Regulation and the Aerosol Coatings Regulation" was issued September 29, 2006, and is posted at: http://www.arb.ca.gov/regact/cpwg2006/isor.pdf. The specific amendments proposed are contained in Appendix A of the Initial Statement of Reasons. Other documents related to the proposed 2006 Amendments are posted on the ARB's 2006 Consumer Products Regulation Workgroup Activity webpage at: http://www.arb.ca.gov/consprod/regact/cpwg2006/cpwg2006.htm.

[2] The data on which we are commenting are also provided on page I-7 of the Initial Statement of Reasons.

[3] *See* 40 C.F.R. § 51.100(s)(1) (2005).

[4] This comment also applies to the section on Electronic Cleaners on pages V-2 to V-3 of the Initial Statement of Reasons

Pages ES-19 to ES-23: Our industry indeed hopes that the total economic impact of these regulatory amendments will be as low as the approximately $200 million ($20 million per year over a ten year period) estimated here. Most of these costs will occur in the next two years, of course, which will put an extreme and acute strain on our member companies' resources. Table 6 shows that approximately 1,060 products will need to be reformulated to meet these 19 new VOC limits. Some of our member companies will need to reformulate several dozen products over this very short period. The economic impacts of these costs on some companies will be quite severe. But the impacts will be even more severe if one or more of these new limits proves *not* to be technologically and commercially feasible. Losses of millions of dollars in sales, and damage to key brands, could lead to even more severe economic impacts.

Appendix A: Technical Support Document

Page I-8: The U.S. EPA is in the process of updating the National Consumer Product Regulations, and plans to issue a proposed rule and a final rule in 2007 that would include almost all of the ARB-adopted VOC limits through the 2004 Amendments. CSPA plans to support this substantive update of the National Consumer Product Regulations.

Pages III-1 to III-3: 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. The simplistic view of technological feasibility presented in this section makes some limited sense, but only if it is assumed that the category of products under discussion are totally interchangeable in their usage. Virtually all of the product categories being regulated by ARB, however, are inevitably composed of a wide variety of products and uses.

In defending the concept of maintaining "basic market demand" as the sole index of commercial feasibility**,** this section sets up (and then knocks down) a "straw man" in its example of "glass cleaners." The primary defect in ARB's basic-market-demand concept continues to be that it fails to consider the two primary quantitative factors that affect the commercial viability of a product in the marketplace: performance and price, the ratio of which constitutes the "value" of the product. (Higher performance and lower price each increase a product's value.) The concept also fails to consider the diversity of consumers and uses for products in the many categories of consumer products. Any concept that ignores the diversity of uses, performance and price can have only tangential connections to the evaluation of commercial feasibility. By ARB's version of the "basic market demand" concept, unpalatable oranges at $100 each could be argued to meet the basic market demand for fruit.

Product value is, of course, not based simply on the cost of the product, but the total cost of accomplishing the task in which the product is used. For many consumer products, the cost of the product is only a small part of the total cost of accomplishing the task. Often, the most significant cost is time and labor. As consumer products are further reformulated to lower VOC content, there will be increasing loss of product efficacy. In some cases, marginal loss of efficacy will result in consumers needing to use more of a product to accomplish a task, temporarily increasing sales. At some point, however, consumers will abandon the products sold for that purpose and find substitutes that work better and in many cases result in increased VOC

emissions. This will result in the commercial products we formulate for these uses becoming commercially infeasible, while VOC emissions increase.

Marketers in our industry and others know that the commercial feasibility of a product can be difficult to predict. But we think the concept is reasonably clear and simple when viewed in retrospect. A change in the products in a category can be considered commercially feasible if it results in little or no loss in sales volume for that category. If the change results in a significant loss in sales volume, it should be considered commercially infeasible.

Pages IV-1 to IV-9: 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 can and 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 and fine particulate matter (*i.e.*, PM-2.5). Such an assessment is needed to establish the actual air quality impact of the proposed regulation.

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, 1989, entitled "Feasibility of Using Air Quality Models and Other Techniques to Distinguish between Emissions Control Measures."[5] 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 in recent 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.

[5] This study was also included as an appendix to the August, 1990, ARB document, "Technical Guidance Document: Photochemical Modeling."

CSPA indeed believes that such routine assessments are essential to meeting the statutory requirement that all of these consumer product VOC regulations "are necessary to attain state and federal ambient air quality standards" as well as prohibiting the adoption of consumer product regulations unless they are "necessary to carry out this division."[6] This Support Document does not include any real assessment of the necessity of this regulation, and neither did the support documents for State Implementation Plan for Ozone adopted in 2003 which set the general reduction goals for consumer products which this regulation seeks to implement.

Although it is not stated directly, Section IV(A)(2) implies that the VOCs from consumer products can serve as precursors to PM_{10} and/or $PM_{2.5}$. We know of no scientific data that demonstrates which, if any, of the VOCs used in consumer products contribute to particulate matter (*i.e.*, Secondary Organic Aerosol) formation in California.[7]

Page IV-9 to IV-13: 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 necessarily relevant to atmospheric conditions during attainment and 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.[8] 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.

Pages IV-14 to IV-16: CSPA believes that the "market coverage adjustments" currently being made to the results of Survey data significantly overestimate total annual product sales, and therefore total VOC emissions, for most categories. ARB has made significant strides in increasing the market coverage of its surveys, especially the past two surveys covering products sold in 2001 and 2003, respectively. For most categories, the only unreported products would be products whose responsible parties have left the industry prior to receiving the survey. In a mature industry such as ours, these products represent a very small percentage of the market, much less than the 10-15% assumed by ARB. While the shelf surveys conducted by ARB are valuable in identifying additional companies to receive the survey forms, they cannot be used to estimate market coverage adjustments, since products on sale at any given date include products introduced subsequent to the survey year, and, in some cases, even some products whose manufacture was discontinued prior to that year.

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[6] California Health and Safety Code Section 41712(a)(4).

[7] The discussion found on pages VIII-6 to VIII-8 provide a reasonable presentation of the current lack of scientific evidence that consumer product VOCs are associated with Secondary Organic Aerosol formation.

[8] "Impact of Consumer Products on California's Air Quality," Sierra Research, Report No. SR97-07-01, July 1997, prepared for the Chemical Specialties Manufacturers Association and Cosmetic, Toiletry, and Fragrance Association.

Pages V-3 to V-6: The comparison in Table V-3 between the 2001 and 2003 Survey Data for the General Purpose Adhesive Remover, the Aerosol Graffiti Remover, and the Non-aerosol Graffiti Remover product categories does not, we believe, necessarily reaffirm the technological and commercial feasibility of those VOC limits adopted in 2004. The comparison does demonstrate, however, that less market share in 2003 were in compliance than in 2001, and that more products are required to be reformulated than previously estimated. It is therefore very likely that the 2003 Survey data could be used to estimate a larger tons-per-day emission reduction than was estimated (and credited) for those limits in the 2004 Amendments. ARB should be allowed to update that reduction estimate and obtain SIP credit for the additional emission reduction obtained.

Page V-7 to V-13 and V-15: CSPA does not believe that voluntary, "early submit" survey data from a limited number of manufacturers can be considered "adequate data" upon which to base consumer product regulatory changes. We are therefore continuing to urge ARB to delay consideration of how to separate rubber/vinyl products into those covered in the Consumer Products Regulation and those covered in the Aerosol Coatings Regulation until complete survey data is available for all products potentially impacted. We do not object, however, to the proposed clarification that the Consumer Products Regulation category applies to all products that are applied to either rubber or vinyl, or both.

Pages VI-7 toVI-11: The inclusion of acetone in the list of "organic solvents designed to remove grease, oil, and other contaminants from brake parts" is not accurate; acetone has little or no efficacy in removing grease and oil, and is used for VOC reduction purposes only. The 5.1% complying market share at 10% for brake cleaners consists primarily, if not solely, of products designed for the South Coast area that have not proven to be commercially feasible. As we have noted elsewhere on the record, we do not believe that the Institute for Research and Technical Assistance study provides any evidence that brake cleaners meeting a 10% VOC limit are technologically and commercially feasible. The Kyzen Cyber Solv product referenced here is not labeled for use in brake cleaning.

Pages VI-11 to VI-15: As we have noted elsewhere on the record, we do not believe that the Institute for Research and Technical Assistance study provides any evidence that carburetor or fuel-injection air intake cleaners meeting a 10% VOC limit are technologically and commercially feasible.

Pages VI-21 to VI-25: This section on disinfectants does not address one very important issue. The products reported in this category in the 2003 Survey as seen in Table VI-11 are all products designed and marketed solely to disinfect hard surfaces. These 400 products are not the only ones, however, that are registered under FIFRA with disinfecting claims. Hundreds of other products subject to VOC limits under other categories are also registered under FIFRA, and it is important that these products *not* be subject to the new VOC limit for non-aerosol disinfectants through application of the Most Restrictive Limit provision.[9]

[9] Cal. Code Regs. Title 17, § 94512(a).

Pages VI-25 to VI-29: As we have noted elsewhere on the record, we do not believe that the Institute for Research and Technical Assistance study provides any evidence that engine degreasers meeting a 10% VOC limit are technologically and commercially feasible.

Pages VI-29 to VI-32: The Survey data on Floor Wax or Polish clearly indicate that at least 245 of the 453 products reported will require reformulation to meet the proposed 1% VOC limit. That is more than half of all currently marketed products. All products in this category must undergo rigorous evaluations to assure their efficacy (durability, burnishability, shine retention, etc.) and safety (slip resistance). Reformulation of hundreds of products over a four-year period represents a very significant challenge for companies that market these products for institutional, commercial, and industrial floors. If members must utilize the Innovative Products provision for some products, this represents a potentially significant increase in time and cost.

Pages VI-38 to VI-42: As we have noted elsewhere on the record, we do not believe that the Institute for Research and Technical Assistance study provides any evidence that products meeting a 10% VOC limit are technologically and commercially feasible for all uses. In addition to automotive maintenance, these products have many diverse institutional and commercial uses. This support document provides no evidence that the feasibility of 10% VOC general-purpose degreasers for these other uses was even considered, much less evaluated.

Pages VI-50 to VI-55: This section on sanitizers does not address one very important issue. The products reported in this category in the 2003 Survey as seen in Table VI-27 are all products designed and marketed solely to sanitize hard surfaces. These 146 products are not the only ones, however, that are registered under FIFRA with sanitizing claims. Hundreds of more cleaning products and fabric care products are also registered under FIFRA, and it is important that these products *not* be subject to the new VOC limit for non-aerosol sanitizers through application of the Most Restrictive Limit provision.[10]

Pages VII-1 to VII-18: We understand that the non-recurring (one-time) costs shown on Table VII-2 and Table VII-5 were developed using standardized estimates for research and development costs. While this represents a reasonable and expeditious approach to develop rough overall estimates of economic impacts, in reality, every category type of consumer product presents its own unique requirements for additional research and development expenses, with different types of evaluations, laboratory testing, safety testing, and field evaluations. We have therefore asked our members to provide, where available, specific estimates of the usual costs to reformulate different types of products. We ask that ARB consider incorporating this information into future assessments, and also consider individual cost effectiveness calculations for various categories. We believe that these category assessments would find that many of the VOC limits being considered (especially those requiring numerous products to be reformulated for relatively small reductions) are very low in cost-effectiveness (*i.e.*, very high cost per pound of VOC reduced). It is also important to note that these assessments assume that technologically and commercially feasible products will be the result of these initial research and development efforts. R&D projects do not always succeed in producing technologically and commercially feasible products, even when the project is not encumbered by the ambitious goals represented

[10] Cal. Code Regs. Title 17, § 94512(a).

by these proposed VOC limits. If difficulties are encountered in these reformulation projects, costs could increase significantly, as well as resulting in significant losses in sales.

Pages VII-19 to VII-27: The estimated raw material costs shown in Table VII-7 appear to vary considerably from the actual per-pound costs for the raw materials used to formulate these products by our industry. We have asked our members to provide to ARB, where possible, more accurate estimates of raw-material costs, to allow ARB to make more accurate estimates in the future for these important recurring costs.

Pages VIII-3 through VIII-12: The air quality environmental impacts regarding ground-level ozone are evaluated here only in terms of VOC mass reductions. CSPA continues to believe that evaluating and comparing impacts in terms of ground-level ozone formation is feasible and would provide a more accurate gauge of environmental impacts. One way to do this, as mentioned earlier, is through photochemical modeling. While this approach would provide the most accurate assessment, the output metrics would be somewhat complex, with impacts differing in various geographical areas of the state. Another approach that should be considered is the use of Maximum Incremental Reactivity-weighted (MIR-weighted) emissions reductions, similar to the approach used in setting Product-Weighted-MIR (PW-MIR) limits for products. This approach would allow for more accurate assessment of the ozone-formation benefits of various regulations, and more relevant cost-effectiveness estimates. The fact that regulations that reduce high-reactivity VOCs have higher ozone benefits could therefore be taken into account in planning ozone attainment and regulatory policy.

Pages VIII-10 to VIII-11: CSPA concurs with ARB's conclusions that increased use of HFC-152a and HFC-134a propellants is not likely to result for the automotive cleaners being proposed for regulation. The additional costs that would be incurred represent a significant barrier. In addition, CSPA has signed an international "Responsible Use Principles for HFCs" agreement that limits the use of these propellants.[11]

Appendix D: 2003 Consumer and Commercial Products Survey

CSPA looks forward to receiving an updated and corrected version of the final data summaries from the 2003 Consumer and Commercial Products 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 initial data summaries, it is clear that the current inventory significantly overestimates emissions for many of these product categories.

Appendix F: Summary of Cost Calculations

This section contains 68 tables representing "low cost" and "high cost" options for reformulating various products and forms to comply with the proposed VOC limits. The generic nature of many of these formulations makes it difficult to assess what actual formulations are being proposed. The formulations and estimated ingredient costs shown in this section appear to vary considerably from the costs and ingredients used to formulate these products by our industry. Most of the assessments find that reformulated compliant products will cost *less* in terms of

[11] These Responsible Use Principles can be seen at http://www.arap.org/responsible.html.

ingredient costs. We have asked our members to supply data on actual formulations and materials costs for these types of products so that more accurate and meaningful assessments can be done in future rulemakings.

SUMMARY AND CONCLUSIONS

CSPA has performed a comprehensive review of the Initial Statement of Reasons and related technical support documents, and has commented on some important issues relating to the current VOC emissions inventory estimates for consumer products, the technical and commercial feasibility of the proposed VOC limits for various categories, assessments of economic costs and impacts, demonstrating the environmental benefits and the need for the proposed VOC emission reductions, the need to consider relative reactivity, and other critical issues. CSPA urges ARB to revise some aspects of this Initial Statement of Reasons when preparing the Final Statement of Reasons.

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