

June 2, 1998

Dear Sir or Madam:

With this letter we are transmitting summaries of the Consumer Products Working Group (CPWG) meeting and the Public Workshop on a Voluntary Photochemical Reactivity Regulation for Aerosol Coating Products, which were held on May 5, 1998, in Sacramento, California. We have also included a copy of the attendance list for the meetings.

At this seventh semi-annual meeting of the CPWG, staff from the Air Resources Board (ARB) and the Department of Pesticide Regulation (DPR) reported on the status of the ongoing activities of the consumer products program. Following the CPWG meeting, ARB staff held a public workshop to discuss a draft proposal for a voluntary reactivity regulation for aerosol coating products. There were approximately 100 participants from industry, trade associations, environmental groups, United States Environmental Protection Agency, DPR and the ARB.

If you have any questions about the CPWG meeting, please call Ms. Doris Rausch, Implementation Section, at (916) 327-1529. If you need information regarding the Public Workshop on a Voluntary Photochemical Reactivity Regulation for Aerosol Coatings, please call Ms. Carla Takemoto, Manager, Technical Evaluation Section, at (916) 322-8283.

Sincerely,

Genevieve A. Shiroma, Chief  
Air Quality Measures Branch

Enclosures

cc: Ms. Doris Rausch  
Implementation Section  
Stationary Source Division  
  
Ms. Carla Takemoto, Manager  
Technical Evaluation Section  
Stationary Source Division

Consumer Products Working Group  
Seventh Meeting Summary - May 1998

Introduction

The seventh semi-annual meeting of the Consumer Products Working Group was held on May 5, 1998, at the Air Resources Board

in Sacramento, California. There were about 100 participants. The following items were presented and discussed at the meeting:

Update on Consumer Products Related Activities:

1. Status of State Implementation Plan
2. Update on the Pesticide Element of the State Implementation Plan
3. Research Contracts/Reactivity Committees
4. Monitoring and Laboratory Division Activities
5. Perchloroethylene Usage Update and Needs Assessment/  
Perchloroethylene Reporting for Consumer Products
6. Aerosol Coatings
7. Hairspray:
  - Hairspray Special Reporting/Variance Guidelines
  - Hairspray Credit Program
8. June 1998 Technical Assessment for:
  - Personal Fragrance Products
  - Crawling Bug Insecticide
9. Industrial/Institutional Definition
10. Fabric Protectants Definition
11. Voluntary Reactivity Program Update
12. Alternative Control Plan Expansion
13. Comprehensive Update to Consumer Products Inventory
14. Mid-term Measures:
  - Auto Wax and Polish Working Group
  - Additional Product Categories
15. Long-Term Measures
16. Antiperspirant and Deodorant Regulatory Update
17. Low Vapor Pressure Volatile Organic Compounds

Summary

Status of the State Implementation Plan

Cynthia Marvin of the Office of Air Quality and Transportation Planning provided an update on the status of the 1994 State Implementation Plan (SIP) for Ozone. She discussed ARB's schedule to do a comprehensive update in 2000 to the inventory, air quality model, and control strategy to meet the federal one-hour ozone standard in the South Coast. California will also need to update the SIP to address the new federal eight-hour ozone standard in 2003, and the fine particle standards (PM<sub>2.5</sub>) in 2005-2006. She then reviewed ARB's encouraging progress on mobile source measures in the 1994 SIP. She also emphasized ARB's continuing commitment to pursue all feasible, cost-effective emission reductions by discussing three 1998 regulatory proposals that were not contained in the 1994 Ozone SIP. These measures would require cleaner engines in new on-road motorcycles and pleasure craft (outboard boat motors and personal watercraft), as well as the use of California clean diesel fuel in locomotives. She also discussed ARB's new technical program for fine particles and haze, including ten public forums being held across the State this spring. Cynthia encouraged the consumer products industry to participate in the forums and other activities to build the scientific foundation for future PM<sub>2.5</sub> SIPs.

## Update on the Pesticide Element of the State Implementation Plan

Mark Pepple from the Department of Pesticide Regulation (DPR) gave an update on the pesticide volatile organic compound (VOC) plan. DPR is implementing a plan to reduce the agricultural and commercial structural pesticide use sources of VOCs by 20 percent between 1990 and 2005. DPR will ensure the 20 percent reduction in any air district within a federal nonattainment area that formally references the pesticide plan. Phase one of the pesticide VOC plan involved the following steps: developing an analytical method based on thermogravimetric analysis (TGA) to estimate the emission potential (EP) of each pesticide; giving registrants the option of submitting TGA data; assigning an EP value to each pesticide based on TGA data or, alternately, on a water subtraction method, an inorganic ingredient subtraction method, or a default value based on the highest valid TGA value for each formulation type; estimating annual pesticidal VOC emissions by multiplying the EP of each pesticide by its annual use; calculating the 2005 target VOC level by multiplying the 1990 base year VOC emissions by 80 percent; and calculating yearly interim VOC target emission levels by multiplying the 1990 base year and each successive year by 98.5 percent. Phase two of the plan includes the following: construct a more representative EP default value; update the inventory with 1996 and later year use data and any revised EPs; and hold periodic workshops to review progress made in achieving the VOC target levels. DPR held workshops in Sacramento, Fresno, and Ventura in April 1998 to review current progress and solicit comments on the VOC data and potential regulatory strategies, should they be needed in the future.

## Research Contracts/Reactivity Committees

### Continuing Research:

Three ARB contracts relevant to consumer products are currently active. The contracts are designed to improve our understanding of the uncertainty associated with mechanisms used to calculate reactivities, to better understand the reactivities of compounds common in many consumer product categories, and to improve ARB's aerosol paints speciation profiles.

The contract "Uncertainty Analyses of Chemical Mechanisms Derived from Environmental Chamber Data" being performed by Dr. Carter of U.C. Riverside and Dr. Milford at the University of Colorado, Bolder is progressing. Analysis of the first category of compounds (aromatics) is almost complete. Consumer product related compounds will be analyzed next and will finish the analysis part of the contract. A draft report should be available early next year.

The contract "Investigation of Atmospheric reactivities of Selected Stationary Source VOCs" awarded to Dr. Carter at U.C. Riverside is progressing well. The experimental work is complete. The analysis of the data is almost complete and a draft final

report should be available by fall of 1998.

The aerosol paints speciation contract titled "Improvement of Speciation Profiles for Aerosol Coatings" awarded to Dr. Albert Censullo at California Polytechnic State University, San Luis Obispo is almost complete. A draft final report is under review at ARB to ensure results are reported so that confidentiality of products tested is maintained.

Two new projects have started. These are "Atmospheric Chemistry of Selected Linear, Branched and Cyclic C10 Alkane Components of Mineral Spirits" where product studies of the atmospheric reactions of three C10 alkanes will be studied, and "Development of Improved Reactivity Measurement Methods" where the next generation of reactivity measurement techniques will be developed. The projects are planned as two and three year projects respectively.

#### Monitoring and Laboratory Division Activities

The Monitoring and Laboratory Division (MLD) staff gave an update on current MLD activities, including progress on the low vapor pressure volatile organic compound (LVP-VOC) round robin testing. At the meeting, staff pointed out that they plan to hold an LVP-VOC workshop in July. The incorporation of the LVP-VOC test method into the consumer products regulation is scheduled for Board consideration in November 1998.

#### Update on the Perchloroethylene (Perc) Needs Assessment for Automotive Consumer Products

ARB staff presented an update on the Perc Needs Assessment for Automotive Consumer Products. The update provided Perc-containing brake cleaning product sales information for California, a preliminary analysis of the Automotive Repair Facility Survey responses, site visit data, screening and refined risk assessment estimates, and information on future tasks.

The ARB is continuing its assessment. If it appears that the use of Perc-containing brake cleaning products poses a significant risk to the public, then the ARB will: identify potential process or product changes, perform a comprehensive cost/benefit analysis on any proposed process or product change, and test the effectiveness and feasibility of potential alternatives.

#### Reporting Perchloroethylene Content in Consumer Products

Staff gave an update on the reporting requirements for perchloroethylene (perc) content in consumer products. Three sets of data are now due: 1996 data to establish the baseline; data for new products introduced in 1997; and data for the 1997 year to update the baseline usage. This reporting requirement applies to aerosol paints, and Phase I and II consumer products only. Staff also asked companies that do not use perc to return the Company Information Sheet (enclosed in the survey) indicating that perc is not used. We agreed to send a clarifying letter to industry to remind them that reporting their

perc usage is a legal requirement. We will also follow up with aerosol coating manufacturers based on their responses to the VOC emission survey.

#### Aerosol Coatings

ARB staff presented an update on the feasibility review of the December 31, 1999, aerosol coatings standards. The first workshop is scheduled for May 19, 1998. Another workshop is scheduled for June 23, 1998, and the ARB hearing is scheduled for October 1998.

#### Hairspray Special Reporting/Variance Guidelines

The development of the "Guidelines for Special Reporting Requirements for Hairsprays" was completed on December 5, 1997. A copy can be obtained by contacting Ed Wong (ewong@arb.ca.gov) at (916) 327-1507, or by accessing the ARB Internet website at: <http://www.arb.ca.gov/consprod/consprod.htm>. The initial draft of the "Guidelines for Variance Provision for Hairsprays" was discussed at a meeting on June 5, 1997, and there was agreement to postpone development of these guidelines until after the completion of the special reporting guidelines. After the development of the special reporting guidelines were completed the development of the variance mitigation guidelines was resumed in January 1998. The second draft of the variance mitigation guidelines was discussed in a conference call on April 23, 1998. The third draft was discussed at a meeting on May 6, 1998. It is expected that the guidelines will be finalized by early June 1998.

#### Hairspray Credit Program

The Hairspray Credit Program (HCP) is a voluntary, market-based emission reduction credit program. Only hairspray products with volatile organic compound (VOC) levels at or below the second-tier hairspray standard of 55 percent may qualify to generate credits. Credits are awarded for emission reductions that are surplus to state and federal requirements. Hairspray businesses may use or hold the credits or sell the credits to other consumer product businesses. The primary use of the credits will probably be to obtain additional time to comply with the upcoming VOC standards for a wide variety of consumer products.

At its November 13, 1997, public hearing, the Air Resources Board approved the proposed HCP regulation and staff's suggested changes for addressing several comments by the United States Environmental Protection Agency (U.S. EPA). Modified regulatory language to implement the suggested changes was made available to the public during a 15-day comment period which ended February 26, 1998. Staff is preparing to submit the HCP regulation to the State Office of Administrative Law (OAL). OAL must approve or disapprove the regulation within 30 days. Upon OAL approval, the regulation will become State law. After OAL approval, the regulation will be submitted to the U.S. EPA as a revision to the State Implementation Plan for Ozone. The U.S. EPA must approve or disapprove the revision within 12 to 18 months.

While the regulatory process has yet to be completed, businesses interested in the Hairspray Credit Program should contact ARB staff to discuss application requirements. Applications should be submitted by early fall of this year to receive credits for the 17-month early compliance period for the 55 percent hairspray standard.

#### June 1998 Technology Assessment for Crawling Bug Insecticide and Personal Fragrance Products

ARB staff summarized their results of the technical assessment for crawling bug insecticide and personal fragrance products. Through a telephone survey, staff found that manufacturers, representing over 90 percent of the market, have the ability to meet the upcoming VOC limits for these two product categories. Based on these data, staff concluded that the upcoming 1/1/99 VOC limits for crawling bug insecticide and personal fragrance products are technologically and commercially feasible. Staff plan to present these findings in a Memorandum to the Board in June 1998.

ARB staff also reported there will be a need for a reporting plan to distinguish between existing personal fragrance products, which are exempt from the future effective standards, and personal fragrance products introduced in the California market on or after 1/1/99. Data for this reporting plan will be acquired from the 1997 Consumer Products Survey. However, to obtain a complete list of all exempt products, it was agreed that a letter will be sent to personal fragrance product manufacturers to obtain names of products introduced in the California market during 1998.

#### Industrial and Institutional Definition

Industry has expressed interest in modifying the industrial and institutional (I&I) definition in the Consumer Products Regulation to more clearly define those industrial products that are exempt from the VOC limits. ARB staff reported that in a recent conference call with industry, it was agreed that exempt industrial products will be excluded from the updated emission inventory, and that we foresee no liability due to ancillary uses of exempt industrial products at industrial facilities. At the meeting, the Working Group agreed that modification of the I&I definition is not needed because a Compliance Advisory would be sufficient to clarify which products are exempt from the VOC limits. A draft Compliance Advisory will be released in June for discussion at a meeting in July.

#### Fabric Protectants Definition

ARB staff provided an update on plans to modify the fabric protectant definition to make it more enforceable. The exemption for silicone-based products in the current definition needs to be clarified to provide for its enforceability. The original intent in developing this definition was to exempt products designed and labeled exclusively for water repellency that contain silicone resin

as the sole active ingredient. Also, we intended to exempt products designed and labeled exclusively as shoe care products. Industry was provided a summary of the technical background on the use of silicone and fluoropolymers as active ingredients. ARB staff and industry discussed the fabric protectant definition and concurred that further discussion is needed. We plan to release draft revisions to the definition in June for discussion at a meeting in July.

#### Voluntary Reactivity Program Update

Staff provided a summary of reactivity-related activities that have occurred since the November 1997 Consumer Products Working Group (CPWG) Meeting. Three significant meetings were held. In January we met with the CPWG reactivity subgroup to thoroughly discuss the science of photochemical reactivity. As a follow-up to that meeting, in February we held a meeting to discuss a draft outline of a reactivity-based regulation. In late February the Reactivity Science Advisory Committee (RSAC) met. This committee was formed by the ARB Chairman to advise the ARB on the science and use of photochemical reactivity. At this meeting we presented concepts for developing a reactivity program for consumer products, and received general support from the RSAC.

#### Expansion of the Alternative Control Plan (ACP) Regulation

Manufacturers continue to express interest in streamlining and simplifying the ACP regulation. Areas to be considered for the 1999 calendar year include streamlining application, approval, and reporting requirements, and extending the lifetime of ACP surplus emission credits. Industry committed to submit comments and suggestions as to how the ACP could be amended.

#### Comprehensive Update to Consumer Products Inventory

ARB staff provided an update on the status of the 1997 Consumer and Commercial Products survey. Staff discussed the time frame for receiving and reviewing the surveys, compiling the survey information into a database, and releasing data summaries. The surveys are due by May 31, and staff expect to have data summaries available by August. The survey results will be used to update the consumer products inventory in the State Implementation Plan. Staff will be providing a memorandum to the Board on the status of the survey results in October.

#### Mid-term Measures

ARB staff provided updates on the progress of the Auto Wax and Polish Working Group, and standard development for 13 categories that were delayed from the Mid-term Measures.

#### Auto Wax and Polish Working Group1

Staff mentioned that the Auto Wax and Polish Working Group met three times since the Mid-term Measures hearing, and would be holding their fourth meeting following the last item of the Consumer Products Working Group meeting on May 5, 1998. During the

first three meetings, the participants agreed which product characteristics to test for in distinguishing "premium" products, and heard presentations from companies that test product performance or manufacture testing equipment. During the fourth meeting, participants agreed to discuss test methods in a series of conference calls that would be arranged by trade associations representing the industry.

- 1 Note: The Auto Wax and Polish Working Group was formed at the direction of the Board to develop test methods to measure the performance of automotive wax and polish products, and to further investigate cost impacts. The test methods will be used to determine whether manufacturers can formulate "premium" products that comply with the Mid-term Measures volatile organic compound standards.

#### Thirteen Categories Delayed from Mid-term Measures

ARB staff stated that they are deferring the development of standards for the 13 categories of products delayed from the Mid-term Measures to focus on updating the consumer products emissions inventory and developing reactivity-based standards for previously regulated categories. The 13 categories include health benefit products such as disinfectants, soap products for which studies are being conducted to determine if the volatile organic compounds discharged to the sewer system biodegrade, and 100 percent solvent products such as paint thinner that need to be addressed with a reactivity-based standard.

#### Long-Term Measures

The formation of a Long-term Measures Subgroup (Subgroup) is the first step in the process of developing the Long-term Measures Program. The Long-term Measures Program will be fully implemented by 2010 and will employ the use of multiple emission reduction strategies. The Subgroup is essential to meeting the goals of the Long-term Measures Program, which include providing for the needed 30 percent reduction to meet ozone attainment, development of programs to foster innovative technologies, and the development of regulations that continue to provide flexibility.

The tasks of the Subgroup will include evaluation of proposed strategies, ranking of the strategies, and making recommendations to the Consumer Products Working Group. In carrying out these tasks, the Subgroup will identify barriers and look for solutions to achieve the goals of the Long-term Measures Program. All parties interested in participating in the Subgroup were asked to provide contact information.

#### Antiperspirant and Deodorant Regulatory Update

Staff reported on manufacturers' progress towards complying with the zero percent high volatility organic compound (HVOC) limits for aerosol products. These limits are scheduled to

become effective on January 1, 1999. In addition to reviewing compliance plans submitted in January, teleconferences were held with compliance plan participants to learn of any additional technical issues that would make compliance unfeasible. Based on these discussions, it appeared manufacturers would be able to comply with the HVOC limits as scheduled. However, staff indicated a continued willingness to work with manufacturers if unforeseen circumstances arise that would delay compliance.

#### Low Vapor Pressure-Volatile Organic Compound Activities

On May 5, staff from the Stationary Source Division presented information on the status of our investigation of the low vapor pressure volatile organic compounds (LVP-VOC) used in consumer products. At the May 6, 1998, LVP-VOC Working Group meeting, we agreed to industry's request for a 30 day delay in development of an LVP-VOC survey. This delay will give industry the opportunity to propose alternative methods of providing the information we need to evaluate the environmental fate of LVP-VOCs. We agreed to only evaluate LVP-VOC hydrocarbon solvents during this initial phase of the study, and will re-evaluate our data needs upon receipt of this information. We sent a letter to industry on May 20, 1998, which identifies the hydrocarbon solvent mixtures and categories for which usage data are needed. If industry is unable to identify alternative methods to provide these data, we plan to release an LVP-VOC survey to consumer product formulators this summer.

#### Future Meetings

The next meeting of the CPWG is tentatively scheduled for October 1998.

Inquiries about this meeting summary should be directed to Doris Rausch, Air Resources Board, at (916) 327-1529.

### Proposed Voluntary Photochemical Reactivity Regulation for Aerosol Coating Products Workshop Summary \* May 5, 1998

#### Introduction

In conjunction with the seventh semi-annual meeting of the Consumer Products Working Group (CPWG), on May 5 we held a public workshop to discuss a draft proposal for a voluntary reactivity regulation for aerosol coating products. The proposed regulation, known as the California Low Emissions and Reactivity (CLEAR) program for Aerosol Coating Products, was mailed to interested parties on April 15, 1998. A summary of the May 5, 1998, CLEAR workshop follows:

1. Review of the regulatory language of the proposed regulation
2. Comparison of absolute and relative maximum incremental reactivity (MIR) values
3. Proposals for Treating MIR Certainty
4. Proposal to Characterize Hydrocarbon Solvents
5. Proposal for Establishing Reactivity-based VOC limits for Aerosol Coating Products
6. Upcoming Schedule

#### Summary

The reactivity workshop was divided into two main areas. The first part of the workshop focused on the structure and regulatory language of the proposed draft CLEAR program. The second half of the workshop concentrated on technical aspects of creating and applying a reactivity-based VOC limit program to aerosol coating products.

Aerosol product manufacturers, in general, appear to support the proposed regulation. The proposed CLEAR program incorporates many of the same concepts and definitions from the existing aerosol coating regulation. However, instead of regulating VOC emissions on a weight-based limit, emissions are calculated and limited based on the maximum incremental reactivity (MIR) scale.

Technical issues associated with a reactivity program include implementing either the relative or absolute MIR scale. These two scales differ in that the absolute MIR value is the product of multiplying the relative MIR value by the base reactive organic gas (ROG) MIR, rendering a value in units of grams of ozone per gram of VOC emitted. Although industry expressed interest in using the relative MIR values, we asked them to consider using the absolute values for ease and consistency with the low emission vehicle (LEV) program.

Staff described a process for assigning an upper limit MIR (ULMIR) value for compounds that, at present, do not have MIR values. We received a proposal from one industry association that suggested a method for dealing with MIR uncertainty. We are evaluating the proposal. CSMA and CTFA made it clear that this proposal did not reflect the views of their associations. The proposal suggested placing compounds into bins based on the certainty of its MIR value. Each bin would then be assigned a multiplier value to account for the uncertainty.

We also proposed to categorize hydrocarbon solvents using a

"bin" approach. Staff continues to work with industry on devising an appropriate technique which can quantify values to each bin based on aromatic content. Staff also presented a proposal for establishing MIR VOC limits.

ARB indicated that, in the long term, we will investigate the feasibility of mandatory reactivity regulations. In consideration of this possibility, CSMA requested that we bifurcate the proposed CLEAR program for aerosol coatings products from all other consumer product categories, and that the reactivity program for consumer products be put on a longer time track.

Manufacturers acknowledged that the need for developing a reactivity alternative for aerosol coating manufacturers is important because lower VOC limits are scheduled to become effective on December 31, 1999.

The next workshops are scheduled for June and July. The CLEAR program for aerosol coating products is scheduled to go before the hearing board in November, 1998.