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

# PUBLIC HEARING TO CONSIDER ADOPTION OF AMENDMENTS TO THE REGULATIONS FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM AEROSOL COATINGS, ANTIPERSPIRANTS AND DEODORANTS, AND CONSUMER PRODUCTS

**Scheduled for Consideration: November 19, 1998**
**Agenda Item No: 98-13-2**

**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 AMENDMENTS TO THE REGULATIONS FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM AEROSOL COATINGS, ANTIPERSPIRANTS AND DEODORANTS, AND CONSUMER PRODUCTS

**Scheduled for Consideration: November 19, 1998**
**Agenda Item No: 98-13-2**

# TABLE OF CONTENTS

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 AMENDMENTS TO THE REGULATIONS FOR REDUCING VOLATILE ORGANIC COMPOUND EMISSIONS FROM AEROSOL COATINGS, ANTIPERSPIRANTS AND DEODORANTS, AND CONSUMER PRODUCTS

Scheduled for Consideration: November 19, 1998
Agenda Item No: 98-13-2

## I. INTRODUCTION

On November 19, 1998, the Air Resources Board (the "Board" or "ARB") conducted a public hearing to consider amendments to: (1) the Regulation for Reducing Volatile Organic Compound Emissions from Aerosol Coating Products (the "aerosol coatings regulation"; title 17, California Code of Regulations (CCR), sections 94520-94528); (2) the Regulation for Reducing Volatile Organic Compound Emissions from Consumer Products (the "consumer products regulation"; title 17, CCR, sections 94507-94517); and (3) the Regulation for Reducing Volatile Organic Compound Emissions from Antiperspirants and Deodorants (the "antiperspirant and deodorant regulation"; title 17, CCR, sections 94500-94506.5). An Initial Statement Of Reasons for Proposed Rulemaking (ISOR) was prepared and made available to the public on October 2, 1998. The ISOR is incorporated by reference herein. This Final Statement of Reasons for Rulemaking (FSOR) summarizes the written and oral comments received during the rulemaking process, and contains the ARB's responses to these comments.

At the hearing, the Board approved Resolution 98-55, in which the Board adopted the amendments as originally proposed, with no modifications. The amendments adopted by the Board will be contained in title 17, CCR, sections 94501, 94508, 94521, 94522, and 94524. The amendments modify the December 31, 1999, volatile organic compound (VOC) limits in the aerosol coatings regulation, and the effective dates for these VOC limits. They also make minor changes to the definitions and administrative requirements in the aerosol coatings regulation. Finally, they add methyl acetate to the list of compounds exempt from the VOC definitions in the aerosol coatings, consumer products, and antiperspirant and deodorant regulations.

As defined in Government Code section 11346.5(a)(6), the Board has determined that this

regulatory action will neither create costs or savings to any State agency nor affect federal funding to the State. The Board has also determined that these amendments 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 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, Chapter VIII.

The Board has also determined, pursuant to Government Code section 11346.5(a)(3)(B), that the regulations may affect small business. The Board has further determined that no alternative was presented or considered which 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, than the adopted regulations.

## III. SUMMARY OF COMMENTS AND AGENCY RESPONSES

The Board received written and oral comments in connection with the November 19, 1998 hearing. 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. Several commenters expressed general support or disagreement with the regulation or certain aspects of it, but did not suggest that the Board take any specific action. While these comments were considered by the Board, most of these comments are not separately addressed in this Final Statement of Reasons because they were not objections or recommendations specifically directed at the proposed action or the procedures followed by the Board in proposing or adopting the proposed action. However, some of these comments have been included in those cases where they add additional information or perspective.

List of Commenters

| Abbreviation | Commenter | Comment form/date |
|---|---|---|
| ACMC | John W. Carney<br>Group Executive<br>Automotive Chemical Manufacturers Council | Written testimony:<br>November 19, 1998 |
| ACTION | Steve Whitehead<br>Western Region Manager<br>Clean Air Action Corporation | Written testimony:<br>November 17, 1998 |

| | | |
|---|---|---|
| CCA | Tim Carmichael<br>Executive Director<br>Coalition for Clean Air; and | |
| | Gail Ruderman Feuer<br>Senior Attorney<br>Natural Resources Defense Council | Joint written testimony:<br>November 17, 1998 |
| JFQ | John F. Quilter | Written testimony:<br>November 21, 1998 |
| MOHAWK | Ron Ashby<br>Technical Service Representative<br>Mohawk Finishing Products | Oral testimony:<br>November 19, 1998 |
| | Richard Loomis<br>President<br>Mohawk Finishing Products | Written testimony:<br>November 17, 1998 |
| NAA | George W. Brown<br>Executive Director<br>National Aerosol Association | Written testimony:<br>November 18, 1998 |
| NPCA | Heidi K. McAuliffe<br>Counsel, Government Affairs<br>National Paint & Coatings Association | Written testimony:<br>September 11, 1998 and<br>November 17, 1998 (faxed testimony for Ken Trautwein) |
| | Ken Trautwein<br>Technical Director<br>Flecto Company, Incorporated<br>(Representing NPCA) | Oral Testimony:<br>November 19, 1998 |
| SW | Bob Graham<br>V.P. & Technical Director<br>Sherwin-Williams Diversified Brands; and | |
| | Doug Raymond<br>Director, Regulatory Affairs<br>Sherwin-Williams Diversified Brands | Joint written testimony:<br>September 8, 1998 and<br>November 13, 1998 |
| | Bob Graham<br>V.P. & Technical Director<br>Sherwin-Williams Diversified Brands | Oral and written testimony:<br>November 19, 1998 |

## A. Proposed 2002 VOC Limits

1. Comment: The proposed 2002 limits are not commercially feasible and should be extended to January 1, 2003. The Board is required by state law to consider commercial feasibility, which means that marketplace factors--those characteristics of the product that make it attractive to customers--must be considered. Just because a product can be made be made at a specific VOC limit does not mean that it can be successfully marketed to consumers. (NPCA)

Agency Response: As explained in detail in Chapter V of the Initial Statement of Reasons (ISOR), we believe the proposed standards are both technologically and commercially feasible, and that an effective date of January 1, 2002 provides sufficient lead time to achieve these standards. Manufacturers have already undertaken significant research and development efforts to lower the VOC content of their products. Staff's proposal will allow manufacturers two additional years to reformulate. In addition, many of the proposed VOC limits are less stringent than the previously specified limits, resulting in an overall cost savings to the industry. Finally, as explained in Chapter VI of the ISOR, there already are complying products on the market in all but two of the 35 regulated coating categories.

Regarding the meaning of the term "commercially feasible", the ARB's interpretation of this term is set forth on pages 21 and 22 of the ISOR. This is the same interpretation that the ARB has consistently followed since the first consumer products regulations were approved in 1989. In general, the factors identified by the commenter are components of commercial feasibility, and were considered by the ARB in reaching the determination that the proposed amendments are commercially feasible.

2. Comment: There is very little indication that the proposed VOC limits for flat, primer, and nonflat coatings can result in technologically and commercially feasible products by January 1, 2002. These products are distinctly different from the other categories of products included in the regulation. There are very few products that currently comply with the proposed standards. In addition, the available methods of reformulating them are unreliable when the amount of VOCs must be greatly reduced. Many of these products already have a high level of solids and other VOC-exempt materials. The limits for these categories should be granted an effective date of January 1, 2003. (NPCA, ACMC)

Agency Response: We do not believe that it is necessary to provide a 2003 effective date for the flat, nonflat, or primer categories. There is strong evidence that technologically and commercially feasible flat, nonflat, and primer coatings can be produced at the proposed VOC limits by January 1, 2002. In the nonflat and primer categories, there are already products on the market that comply with the proposed standards. Although there are relatively few complying products in these categories, the existence of these complying products still demonstrates that it is possible to produce products at the proposed levels. In the flat paint category, there are currently no complying products. However, there are many existing products that are very close to the proposed 40 percent VOC limit. Specifically, as stated in Chapter VI of the ISOR, about 16% of

the market is at or below the 45 percent VOC level. Chapter VI explains how the products in each of the categories mentioned by the commenter can be reformulated. While we agree that some products already have high levels of solids or acetone, these are not the only reformulation methods available to manufacturers. For example, no manufacturers are currently using parachlorobenzotrifluoride or hydrofluorocarbon-152a in their products. As explained in Chapter V of the ISOR, these exempt compounds can be used to reformulate aerosol paints.

3. Comment: An additional year beyond 2002 is necessary to develop products that can use exempt compounds such as hydrofluorocarbon-152a (HFC-152a) and parachlorobenzotrifluoride (Oxsol 100). These exempt compounds are not used by the industry because of cost, and more significantly, because of technological problems resulting in poor product performance. (NPCA)

Agency Response: We believe that a January 1, 2002 deadline provides sufficient time to formulate complying products that will perform well, even if the products contain the exempt compounds mentioned by the commenter. Many manufacturers already have experience using these compounds. In some cases, prototype formulations with acceptable performance have been developed. Chapter V of the ISOR includes a detailed explanation of how manufacturers can use these compounds to reformulate their products. We recognize that these compounds are more expensive than the solvents and propellants currently used in aerosol paints. However, we believe that the cost analysis in Chapter VIII of the ISOR demonstrates that cost-effective products can be made using these exempt compounds.

4. Comment: State law requires the maximum feasible emissions reductions from this source category, and defines that objective as a 60 percent reduction in VOC emissions. The proposed amendments violate state law because they do not achieve a 60% reduction in VOC emissions. (CCA)

Agency Response: We do not agree with the commenter's interpretation of state law. Following is a detailed discussion of the requirements of state law and why the ARB believes that the proposed amendments meet these requirements.

The proposed amendments were adopted pursuant to Health and Safety Code section 41712, which specifies a number of requirements that aerosol paint regulations are supposed to meet. Section 41712(d) specifies that the ARB shall not adopt regulations unless they are "technologically and commercially feasible." Section 41712(i) directs the ARB to adopt final limits for aerosol coatings that achieve the "maximum feasible reduction" in VOCs emitted from the use of aerosol paints. The term "maximum feasible reduction in VOCs emitted" is defined in section 41712(a)(3) as at least a 60-percent reduction in the emissions of VOCs resulting from the use of aerosol paints.

In this regulatory action, the ARB faced a situation in which it was not possible to adopt final VOC limits which both: (1) are technologically and commercially feasible, and (2) achieve at least

a 60 percent reduction in VOC emissions from aerosol paints. Section 41712 directs the ARB to adopt regulations meeting both of these criteria. But section 41712 does not explicitly state what action the ARB should take if both of these directives cannot simultaneously be met. What did the Legislature intend the ARB to do in this situation? The ARB has concluded that if both of these statutory directives cannot simultaneously be met, then the ARB must set the most stringent VOC limits for aerosol paints that are technologically and commercially feasible, even if these VOC limits will not achieve a 60 percent reduction in VOC emissions. The basis for this conclusion is explained below.

AB 1890 (Stats. 1993, Chapter 1028) is the bill which directed the ARB to achieve a 60 percent reduction in VOC emissions from aerosol paints. As originally enacted, AB 1890 addressed the issue of how the "60 percent reduction" directive should be harmonized with the directive that the regulations be "technologically and commercially feasible." AB 1890 mandated that the 60 percent reduction must be achieved, even if this meant that some of the VOC limits would be set at levels that were not technologically and commercially feasible (i.e., the 60 percent reduction must be achieved even if this meant that certain categories of aerosol paints would not be able to meet the regulatory limits, and would thus no longer be manufactured for California sale.)

AB 1890 did this by including the following language in subdivision (f)(4) of section 41712: "…the regulation of aerosol paints is not subject to subdivision (b)." In 1993 when AB 1890 was enacted, subdivision (b) of section 41712 required consumer products regulations to be "technologically and commercially feasible." Therefore, the language in subdivision (f)(4) meant that the final limits in aerosol paint regulations did not have to be technologically and commercially feasible. In enacting AB 1890, the intent of the Legislature appeared to be that achieving the 60 percent emission reduction was the ARB's priority, and that this 60 percent emission reduction must be achieved <u>even if</u> this meant that some of the final limits for aerosol paints would not be technologically and commercially feasible.[1]

Section 41712(i)(2) requires that ARB to adopt “final limits” that would take effect no later than 12/31/99. However, section 41712(i)(3) then requires that ARB to hold a public hearing by December 31, 1998 to determine if the 12/31/99 limits are feasible by this date. If they are not feasible by 12/31/99, then the statute allows the ARB to grant an extension of time to comply of

[1] Under the statutory scheme established in Health and Safety Code section 41712(i), the ARB is supposed to set both “interim limits” and “final limits” for aerosol paint . The above analysis discusses whether the “final limits” for aerosol coatings must be technologically and commercially feasible (feasible). As discussed below, it is quite clear the interim limits must be feasible, but whether the final limits must be feasible is a harder question. The more difficult question--the question addressed above in the main body of this analysis--is what the Legislature intended for the ARB to do if final limits, even after the maximum allowable five-year delay, cannot be set levels which will simultaneously: (1) be feasible, and (2) achieve a 60 percent reduction in VOC emissions.

up to five years, and requires the ARB to set the most stringent “interim limits” that would apply during this period of delay. The basic idea is that the ARB is supposed to insure that the interim

limits are feasible up until the date that the final limits become effective. This is obvious because, if the Legislature was not concerned with whether these interim limits were feasible, then there would have been no need to require a hearing on their feasibility.

Section 41712 was subsequently amended by two other bills which made changes to the language originally enacted by AB 1890. In 1996, the Legislature enacted AB 1849 (Stats. 1996, Chapter 766), which made a number of both substantive and organizational changes to section 41712. As part of the organizational changes, subdivision (f)(4) was redesignated as subdivision (i)(4), and the new subdivision (i)(4) was amended to read "... the regulation of aerosol paints is not subject to ~~subdivision (b)~~ *subdivision (c)*." As amended by AB 1849, subdivision (c) contained the following new language: "(c) a regulation shall not be adopted which requires the elimination of a product form." AB 1849 also moved to a new location the language requiring that consumer product regulations must be "technologically and commercially feasible"; this language was placed in subdivision (d) instead of its former location in subdivision (b).

By changing the above reference from "subdivision (b)" to "subdivision (c)", AB 1849 eliminated the exemption for aerosol paint regulations from the requirement that the regulations must be "technologically and commercially feasible." This exemption was replaced by a different exemption--an exemption from the new requirement that a regulation must not "require the elimination of a product form." There is nothing in the legislative history of AB 1849 which discusses the reason for this change. The most obvious explanation is that a simple drafting error was made during the process of amending and reorganizing section 41712.

This explanation is confirmed by the legislative history of a follow-up bill which was enacted in 1997: SB 987 (Stats. 1997, Chapter 568). SB 987 amended section 41712 (i)(4) by simply deleting the phrase "... the regulation of aerosol of aerosol paints is not subject to subdivision (c)." The effect of this amendment is that there are no longer any exemptions that apply to the final limits for aerosol paints; these limits must be both technologically and commercially feasible, and must not require the elimination of a product form. Why did the Legislature make this amendment? The legislative history of SB 987 describes the reason for this amendment as follows:

> "Corrects an inadvertent change to a 1996 law which authorized the California Air Resources Board (ARB) to ban aerosol paint products. Specifically, this bill removes the exemption of aerosol paint products from the prohibition of regulations which would eliminate a product form, thereby making the treatment of aerosol paint products consistent with that of other regulated products."...

> ... AB 1849 (Sher), Chapter 766, Statutes of 1996, was enacted to address a wide range of subjects concerning the regulation of VOCs. Among the provisions of AB 1849 was the addition of Sec. 41712(c), which states in its entirety that "a regulation shall not be adopted which requires the elimination of a product form." However, at the very end of the section, AB 1849 amended Sec. 41712(i)(4) to state that "the regulation of aerosol paints is not subject to subdivision (c)." The author of AB 1849 notes that the exemption of aerosol paint products from subdivision (c) of the statute was an inadvertent drafting error, and is authoring SB 987 to correct this error ..."
>
> (Senate Analysis, Third Reading: SB 987, as amended September 5, 1997)

Similar statements are contained in other legislative committee reports on SB 987. The above statements explain very clearly why the Legislature wanted aerosol paint regulations to comply with the requirement that they must not require "the elimination of a product form." However, these statements do not explicitly discuss why the Legislature did not reinstate the earlier exemption from the requirement that aerosol paint limits be "technologically and commercially feasible." In the absence of an explicit rationale, how then is the ARB to harmonize the requirement in subdivision (d) that aerosol paint regulations must be "technologically and commercially feasible", with the directive in subdivisions (i)(2) and (a)(3) that the final aerosol paint limits achieve a 60 percent reduction in VOC emissions?

The fundamental principle of statutory construction is that the intent of the Legislature should be ascertained and implemented. In situations where the statutory language is unclear (such as the language here), it has long been an accepted principle that statutory and legislative history may be examined to ascertain the intent of the Legislature. In the somewhat convoluted history described above, two salient points stand out. First, Health and Safety Code section 41712 at one time provided that achieving the 60 percent emission reduction was the ARB's priority (i.e., that this emission reduction must be achieved even if this meant that the final limits for aerosol paints would not be technologically and commercially feasible.) Then the Legislature specifically deleted this provision. This is some indication that the Legislature has changed its mind, and that the Legislature now intends that aerosol paint limits must be technologically and commercially feasible.

Second, in the legislative analysis excerpted above, the Legislature is apparently concerned about two issues regarding aerosol paint regulations. The Legislature is concerned: (1) that the ARB should not be authorized to ban aerosol paints, and (2) that the treatment of aerosol paint products be "consistent with that of other regulated products." If the ARB were to achieve a 60 percent reduction by setting some VOC limits that are not technologically and commercially feasible, the result would be that: (1) certain subcategories of aerosol paints could no longer be manufactured for California sale, and thus would be effectively "banned", and (2) the treatment of aerosol paints would not be consistent with that of other regulated consumer products, since VOC limits can be set for all other regulated consumer products only if the limits are technologically and commercially feasible. Therefore, if the ARB were to achieve the 60 percent

reduction by setting VOC limits that are not feasible, the result would be the very outcomes that the Legislature was concerned about and wished to avoid.

It is a principle of statutory construction that all parts of a statute should be construed together and harmonized as far as possible, rather than finding an irreconcilable inconsistency in the statutory language. The ARB staff believes that the most straightforward way to harmonize and reconcile the statutory language is that, in the event that both of the statutory directives discussed above cannot simultaneously be met, then the ARB must set the most stringent VOC limits for aerosol paints that are technologically and commercially feasible, even if these VOC limits will not achieve a 60 percent reduction in VOC emissions. In other words, ARB staff believes that the Legislature directed the ARB to use its best efforts to achieve a 60 percent reduction, by adopting the most stringent feasible limits for aerosol paints. But the final VOC limits must be technologically and commercially feasible, even if this means that a 60 percent reduction will not be achieved.

The ARB believes that this interpretation of section 41712 is the most consistent, straightforward way to harmonize these provisions and give effect to both of them as far as possible. After all, the words of the statute direct the ARB to achieve the "maximum feasible reduction"(emphasis added) in VOCs emitted from aerosol paints. Even though the term "maximum feasible reduction in VOCs emitted" is defined in the statute as "at least a 60 percent reduction", the word "feasible" is nonetheless used to describe these reductions. In an effort to harmonize these various statutory provisions, it is reasonable to give the phrase "maximum feasible reduction" a more common or ordinary meaning, and conclude that the VOC limits must be set at the maximum (i.e., most stringent) levels that are "technologically and commercially feasible."

5. Comment: State law requires that the adopted aerosol coatings regulation be technologically and commercially feasible. Based on the available alternatives set forth in the Staff Report, the current and more stringent limits are feasible. In particular, relaxation of the standards and a two-year across-the-board implementation delay for all 35 categories is not warranted. (CCA)

Agency Response: We agree that the adopted aerosol coatings regulation must be technologically and commercially feasible, but we do not agree with the other assertions made by the commenter. Basically, the commenter is stating his disagreement with virtually the entire proposal adopted by the ARB (with the exception of those VOC limits that remain unchanged or were made more stringent, and the possible exception of various minor technical amendments.) The rationale and technical support for the ARB's proposal is discussed in great detail in the ISOR, and the entire ISOR essentially serves as the ARB's response to this comment. The commenter also generally refers to "the available alternatives set forth in the staff report" as support for the commenter's statements. It is not entirely clear which "alternatives" are being referred to, but this statement is most likely a reference to the reformulation options discussed in Chapters V and VI of the ISOR. These chapters discuss the possible reformation options in

detail, explain their advantages and limitations, and set forth the ARB staff's conclusions and the rationale for these conclusions.

6. Comment: For the categories where the ARB is proposing more stringent standards, the ARB has determined that a significant portion of the affected aerosol coatings already comply with the proposed limits. This demonstrates that the standards are both technically and economically feasible at the present time. Therefore, no justification exists for a wholesale extension of time for compliance. (CCA)

Agency Response: For those manufacturers who already make products that comply with a particular standard, the standard is obviously feasible--for those manufacturers--at the present time. But the manufacturers who do not currently make complying products need sufficient lead time to reformulate and test new products. This time is needed to develop complying formulations and perform a variety of tests--including long-term stability testing of the final formulation in the product container. The ARB staff's best engineering judgement is that a January 1, 2002 effective date provides the appropriate amount of lead time for the industry as a whole to complete this process and begin the manufacture of complying products.

7. Comment: Considering the available reformulation alternatives expressed in the ISOR, there is insufficient justification for the two-year extension of the existing 1999 limits for those categories where a weaker standard is proposed. There is also no justification for providing a two-year extension for those categories where the existing 1999 limits are proposed to be left in place. The existing standards have been set for a number of years, and are both technologically and economically feasible. If necessary, the variance provisions--with appropriate mitigation--can be used to protect both commercial and environmental interests in a manner that does not impair air quality. If a variance is warranted, it should be granted on a case-by case basis, and the excess emissions should be made up by alternative reduction strategies. The current hair spray variance requirements are an excellent example of how this could be done. (CCA)

Agency Response: The responses to the previous two comments address most of the issues raised in this comment. To summarize, the ARB believes a two-year extension is needed for these limits to provide sufficient lead time for manufacturers to develop technologically and commercially feasible products. Not providing a two-year extension could also inadvertently impact the sales of water-based products, which may be more challenging to reformulate than solvent-based products. The commenter also suggests that the ARB could grant variances (with mitigation) instead of modifying the limits. The issue is addressed in the response to Comment No. 13.

8. Comment: The ARB proposal does not require the most stringent interim limits during the proposed extension to January 1, 2002. (CCA)

Agency Response: We do not agree. Sufficient lead time must be provided for any standard (whether characterized as an interim or a final standard) to be considered technologically and commercially feasible. Since the proposed January 1, 2002, effective date provides only a two-year extension from the December 31, 1999 limits, we do not believe it is feasible to require

manufacturers to reformulate to one set of standards, and then reformulate again for the January 1, 2002, limits. In this situation, we believe that the existing standards are the most stringent interim standards, considering the lead time required for reformulation and that fact that the ARB is providing only a two-year extension (instead of the maximum allowable five-year extension.)

9. Comment: Our company sells specialty aerosol products that fall within the "wood touch-up, repair, or restoration coatings" category. Some of these products would be outlawed if the Board adopts the proposed 90 percent VOC limit for this category, with the proposed effective date of January 1, 2002. We would support a 92 percent VOC standard, and/or an effective date of 2003. If these changes to the staff proposal are not made, we may have to utilize the Alternative Control Plan in order to comply. (MOHAWK)

Agency Response: We believe that manufacturers can successfully reformulate their wood touch-up, repair, or restoration products to the proposed limit by the proposed 2002 effective date, using one or more of the technologies described in Chapter V of the ISOR. In fact, 96 percent of the market already complies with the 90 percent VOC limit established for this category. Therefore, we do not agree that either a 92 percent VOC limit or a 2003 effective date is warranted. As the commenter mentions, however, we do agree that the Alternative Control Plan (title 17, CCR, sections 94540 to 94555) also provides a possible compliance option for manufacturers.

10. Comment: As a scale model crafts person, I make extensive use of aerosol paints, and am opposed to further regulation of these products in California. I have tried the water-based aerosol paints and they do not have the same drying or durability characteristics as currently available lacquer or oil-based paints. Water-based paints do not permit final polishing with jewelers rouge and thus cannot achieve the same level of gloss as conventional aerosols. If aerosol paints are eliminated, the only alternative is expensive and wasteful, and probably more environmentally damaging, air brush painting methods. (JFQ)

Agency Response: The proposed amendments will allow manufacturers to continue to make aerosol paints with performance that is similar to existing products. The proposed January 1, 2002 VOC limits for the hobby/model/craft coatings are either the same or less stringent than the existing December 31, 1999 VOC limits. The proposed amendments will not prohibit any products or force manufacturers to produce only water-based products. Manufacturers will still be able to manufacture oil-based or lacquer aerosol paints.

**B. Miscellaneous Comments**

11. Comment: We support the proposed amendments, even though this means that a reactivity-based regulation will not be adopted in 1998. We hope that the current mass-based regulation will be an interim measure used until additional data on reactivity factors becomes available. We understand the need for further research on reactivity, and hope that this research will result in the adoption of a reactivity-based regulation in 1999. We fear that the requirements in the mass-based regulation may not be technologically feasible for many products, and the use of relative reactivity offers a significant compliance option for manufacturers. (NAA)

Agency Response: As explained in detail in Chapters V and VI of the ISOR, the ARB believes that the proposed 2002 mass-based VOC limits are technologically and commercially feasible for all product categories. However, to provide manufacturers with greater compliance flexibility, the ARB staff plans to propose a voluntary reactivity-based regulation for the Board s consideration in 1999. A general description of this proposal can be found in Chapter V, page 32 of the ISOR.

12. Comment: We support all of the proposed amendments to the current mass-based aerosol coatings regulation. We also feel strongly that the Board should adopt a reactivity-based regulation, following the peer review of the maximum incremental reactivity (MIR) values. We agree that the peer review should be conducted before the reactivity-based regulation is proposed. (SW)

Agency Response: As explained in the response to the previous comment, the ARB staff agrees that a voluntary reactivity-based regulation is a proposal that has merit. Staff plans to present such a regulation to the Board in 1999, after the peer review of the MIR values is completed.

13. Comment: If the Board determines that reductions must be made and allows variances with mitigation, we are willing to manufacture VOC emission reductions. These reductions could be made throughout the state and could be used to mitigate increased emissions from a variance. A variance with mitigation approach allows the Board to grant the delays for all categories and to set lower limits in twelve categories without sacrificing air quality. (ACTION)

Agency Response: While the commenter's statements are not entirely clear, it appears that the commenter is not suggesting any changes to the proposed amendments. Rather, the commenter (Clean Air Action Corporation) appears to be offering its services to companies that may in the future apply for variances from the aerosol coatings limits. If a company applies for a variance, the commenter is offering to sell emission reduction credits to mitigate the increased air emissions which would result from issuing the variance.

The aerosol coatings regulation allows the ARB Executive Officer to grant variances if

specified criteria are met (see title 17, CCR, section 94525). The variance provisions do not specifically require variance applicants to mitigate the air quality impacts that would result from granting the variance. However, section 94525(c)(2) specifies that a variance will be granted only if the public interest in mitigating the hardship to the applicant outweighs the public interest in avoiding any increased emissions of air contaminants which would result from issuing the variance. To help meet this criterion, some variance applicants in the past have committed to mitigating the increased emissions by providing some type of offsetting emission reductions. It is possible that the commenter's services could be useful for future applicants who wish to use them to help meet this criterion.

The commenter might be suggesting that the Board should adopt an approach in which mitigation is required for all variances. The ARB's position is that mitigation is highly desirable in situations where it is feasible, but there are situations in which mitigation is not feasible because it would impose an extraordinary economic hardship on the variance applicant, or for some other reason. Therefore, the ARB staff does not believe that an across-the-board requirement for mitigation should be specified in the regulation. We believe that the existing approach, which allows mitigation to be considered and imposed on a case-by-case basis, is more appropriate. It should be noted that there is a mitigation requirement specified in the ARB consumer products regulation, but this requirement applies only to variances from the June 1, 1999, 55 percent VOC standard for hairspray products (see title 17, CCR, section 94514(h)). This requirement was imposed because hairsprays are responsible for a significant portion of the consumer products emissions, and the potential exists that the projected emission reductions in the California State Implementation Plan could be compromised if variances are granted for hairsprays without mitigating their emissions. We do not believe that the same potential exists for variances from the aerosol coatings regulation. And even the requirement to mitigate hairspray variance emissions is not absolute--it can be waived if it would "... result in an extraordinary economic hardship to the applicant, or if other good cause exists...". For all of these reasons, we do not believe that it is appropriate to include a variance mitigation requirement in the aerosol coatings regulation.

Finally, it is also possible that the commenter may be suggesting that the Board retain the lower limits and the shorter lead times that are currently specified in the regulation, and then allow manufacturers to "comply" with the limits by granting variances on a case-by-case basis, as long as the emissions from the variances are mitigated. If this is what the commenter is suggesting, we believe that the suggested approach does not meet the requirements of state law. This is because the ARB has determined that a number of the current limits are not technologically and commercially feasible within the lead times provided, and that the regulations must be modified accordingly. Therefore, retaining the current limits and effective dates would not comply with Health and Safety Code section 41712, which requires that the regulations must be technologically and commercially feasible.