American Chemistry Council

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VICE PRESIDENT
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June 20, 2007

Mr. James Nyarady, Manager
Strategy Evaluation Section
Stationary Sources Division
California Air Resources Board
1001 I Street
Sacramento, CA 95814-2828

RE: Air Resources Board ("ARB") Suggested Control Measure ("SCM") for Architectural, and Industrial Maintenance Coatings

Dear Mr. Nyarady:

The American Chemistry Council's Solvents Industry Group (ACC SIG)[1] is submitting this letter to supplement comments previously submitted to the California Air Resources Board (ARB) concerning their proposed revisions to the SCM for Architectural and Industrial Maintenance (AIM) coatings.[2] This letter responds to issues raised during the June 6 workshop, and reiterates the SIG's strongly held belief that the SCM should encourage air districts to include reactivity in their VOC emissions control strategies for AIM coatings.

The SIG's previous letter summarized the well documented benefits of reactivity-based approaches to VOC regulation, and also showed that data generated *by ARB* clearly document categories of coatings where tighter mass-based limits have *not* resulted in corresponding reductions in ozone-forming potential, and in some cases have resulted in *increases* in ozone-forming potential of emissions. Additional examples were presented by Ronald Hill of ExxonMobil Chemical Company, on behalf of the SIG at the recent workshop.[3] Moreover, ARB has expressly stated, "We expect an equal or greater air quality benefit (with reactivity) compared to a mass-based strategy, because VOCs with the greatest ozone forming potential will be targeted rather than treating all VOCs equally."[4] Seven years ago, the Board adopted a resolution that specifically directed ARB staff to work with industry and other stakeholders in assessing the ozone-forming potential (i.e., reactivity) of architectural coatings, and to evaluate the feasibility of developing a reactivity-based control strategy.[5] Thus, it was very disappointing to see that reactivity was not part of the ARB staff

[1] The following companies are members of the ACC Solvents Industry Group: The Dow Chemical Company; ExxonMobil Chemical Company; Shell Chemical LP; Eastman Chemical Company; and Sasol North America, Incorporated.
[2] See letter from the Solvents Industry Group to ARB, dated May 10, 2007, which is attached to this letter.
[3] See presentation that the Solvents Industry Group made to ARB staff June 6, 2007.
[4] ARB 2005 Architectural Coatings Survey Draft Reactivity Analysis (January 2007), p. 1-5.
[5] Resolution 00-23 (June, 2000) (described at p. 1-3 of the January 2007 ARB Report – see previous footnote).

presentation at the recent workshop, and that the concept of reactivity thus far has been omitted entirely from the SCM. Also disappointing was the apparent resistance by ARB and SCAQMD staff to the concept of reactivity when it was raised during the workshop by various participants.

The ACC SIG believes reactivity should be incorporated into the SCM in at least two ways. First, we believe the SCM should include reactivity-based limits, rather than mass-based limits, or that at the very least, the SCM should include both approaches. Second, to the extent the SCM continues to include mass-based approaches, the SIG believes the SCM should include an Innovative Products Exemption (IPE), or some similar provision, that would allow use of products that out-perform mass-based limits on a reactivity-adjusted basis.

ARB has expressly stated, "If a coating contains a small amount of a highly reactive compound, it could have a relatively high reactivity rating even if it has a low level of volatile organic compounds (VOCs). Similarly, a coating that has a high VOC content may have a relatively low reactivity rating, if it contains compounds that aren't very reactive."[6] These statements of course are true, and it is no longer scientifically credible or consistent with sound environmental policy to adopt an SCM that ignores the benefits implementing such controls can bring. The ARB aerosol coatings rule proves that implementation of an effective reactivity-based rule can be done. The ARB 2005 Architectural Coatings Reactivity Report demonstrates that it should be done. The ACC SIG believes the time for reactivity-based limits has arrived. ARB, the districts and product formulators should measure a parameter with impact – the total reactivity of the solvents included in coatings, not just the mass. Unless that is done, the effectiveness of tighter mass-based VOC limits will be completely variable, depending on solvent substitution decisions that are made to comply with mass-based limits, and the results in each case only will be known years later, when the next survey is completed.

Concerning the IPE concept, we are aware of no scientific or regulatory basis for not allowing use of products that provide equal or greater benefits in terms of ozone-forming potential, and we can see no rational basis for not including such a provision in any SCM or regulation that takes a mass-based approach. Such a measure would represent an important step toward inviting companies to further consider the reactivity of the solvents they use in product formulations.

We do not believe it is too late to incorporate reactivity into the SCM for AIM coatings. Much of the required regulatory text already exists in the form of the aerosol coatings rule. The most significant change we would urge would be the replacement of certain reporting requirements with record-keeping requirements; we think it should be sufficient for product formulators to maintain records supporting their compliance determinations, with the requirement that such records be made available for inspection upon request. Agency resource and timing considerations should not stand in the way of adopting scientifically sound regulations, and do not justify failing to employ the best science available in the pursuit of compliance with the federal ozone standard.

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[6] January 2007 ARB, p. E-1.

As stated in our previous letter, members of the ACC SIG manufacture a wide range of solvents, including VOC-exempt solvents, solvents that are not exempt but have relatively low photochemical reactivity; solvents that have relatively high reactivity; and solvents used in water-based coatings (it is sometimes forgotten that solvents play an essential role in the formulation of water-based coatings). The ACC SIG supports the development of regulations that encourage product formulators to consider reactivity in their formulating decisions, as a way to reduce the environmental impact of solvents without compromising product performance, including avoiding performance decrements that would lead to more frequent use. Photochemical reactivity is a proven concept that makes that possible, and it applies equally to water-based and solvent-based technologies.

For the reasons expressed in this letter and the SIG's previous submissions, the ACC SIG urges the ARB to include reactivity in the SCM for AIM coatings. Prior ARB statements clearly acknowledge that reactivity-based approaches should be expected to provide equal or greater environmental benefits, and we believe there is no longer any scientific, policy or legal reason not to realize those benefits.

We appreciate your consideration of these comments. If you have any questions, or if we can provide additional support for the incorporation of reactivity into the SCM for AIM coatings, please contact the SIG's manager, Andrew Jaques, at (703) 741-5627 or by email at Andrew_Jaques@americanchemistry.com.

Sincerely,

Sharon H. Kneiss

Sharon H. Kneiss
Vice President, Products Divisions

Attachments

cc: Barbara Fry, Chief
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