



June 23, 2009

Mary Nichols, Chairwoman and Members of the Board
California Air Resources Board
1001 I Street
Sacramento, CA 95812

RE: Support for Cool Car Standards and Test Procedures

Dear Chairwoman Nichols and Members of the Board:

We strongly support moving forward with a regulation to reduce greenhouse gas (GHG) emissions from vehicles through the use of high performance window glazing. The use of better performing window glazing in vehicles can reduce interior temperatures and air conditioning loads. With this standard, consumers will be able to lower their fuel consumption and GHG emissions. As staff's analysis shows, the (GHG) emissions reductions are cost-effective and will pay for themselves through fuel cost savings over the life of the vehicle.

The same analysis also shows even greater emission reductions could be achieved with higher performing glazing, while still achieving net-cost savings. We urge the Board to consider the more stringent option identified by staff¹ establishing an all-around requirement for window glazing having less than 40 percent Total Solar Transmittance (Tts). This option will maximize emission reductions while still continuing to provide highly cost-effective GHG emission reductions.

A stronger performance standard than proposed by staff would likely be met with the use of solar-reflective laminated glass, offering consumer benefits beyond CO₂ emissions

¹ *Initial Statement of Reasons for Rulemaking: Coll Car Standards and Test Procedures*, California Air Resources Board, May 8th 2009, page 9.

reductions and cost savings. Laminated glass currently comes standard or is available as an option on some vehicle models in both windshield and non-windshield window positions. Vehicle models offering laminated glass in non-windshield positions include those from Ford, Buick, Saturn, Lexus, Mercedes, Hyundai, Subaru and Volkswagen. Laminated glass also has the co-benefits, not monetized by the rulemaking, of reducing cabin noise, deterring thefts and reducing the risk of occupant ejection in an accident.²

Staff estimates a net cost savings over the life of the vehicle of \$32/ton of CO₂eq from the stronger performance standard. While not as large a consumer savings as estimated for the staff proposal, consumers will still save money while the State will be able to achieve an estimated 14 percent greater CO₂ emissions reductions. And as CARB has successfully shown with the Pavley tailpipe standards, this standard could also have ancillary benefits by driving further innovation in the industry, use of glazing in other vehicle markets outside California, and serve as a model standard for wider adoption nationally.

While this standard is the first of its kind, there are additional opportunities to improve the energy efficiency of the interior vehicle. For example, similar measures designed to reduce air conditioning loads in medium and heavy-duty trucks should also be pursued by ARB to provide additional emission reductions and cost savings to truck owners. And, as part of AB32 efforts to reduce emissions from goods movement, standards designed to reduce cooling loads in refrigerated cargo containers and truck trailers should also be developed.

We applaud ARB for moving forward with this measure to quickly obtain emission reductions from passenger vehicles and ask that the Board adopt a regulation at the June 2009 hearing that maximizes emission reductions and achieves positive consumer savings. As technologies to control in-cabin temperatures and reduce cooling loads advance, ARB should develop a more comprehensive performance standard for cabin climate control energy efficiency. Such a performance standard could incorporate advances in window glazing, paints, insulation, and other strategies allowing greater emissions reductions and more flexibility for manufacturers and consumers alike.

Sincerely,

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² Willke, Donald et.al, *Ejection Mitigation Using Advanced Glazing: Status Report II*, National Highway Transportation Safety Administration, August 1999.

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