January 25, 2012

Clerk of the Board
Air Resources Board
1001 I Street
Sacramento, California 95814

Subject: Advanced Clean Car Regulations

Dear Chairman Nichols and Members of the Board:

Mazda North American Operations (Mazda), in conjunction with Mazda Motor Company, has reviewed the recent proposal for the Advanced Clean Car Regulations and is providing the following comments for your consideration.

We fully agree with, and support, the comments provided separately by the Alliance of Automobile Manufacturers related to the proposed requirements for greenhouse gases (GHG) and criteria pollutants as part of the Advanced Clean Car Regulations.

Additionally, Mazda agrees with the proposal by the Air Resources Board to allow, under limited conditions, credits from GHG over-compliance to be used toward compliance with the 2018 – 2021 MY Zero Emission Vehicle program. Sensible flexibilities, such as this, in the regulations are very important for Mazda, which may need to use alternative pathways to achieve compliance with the very stringent requirements that are being considered due to our limited resources.

In the proposed changes to the ZEV Mandate definitions for “Large Volume Manufacturer” (LVM) and “Intermediate Volume Manufacturer” (IVM), ARB has dropped the threshold from the current level of California annual sales of 60,000 all the way down to 20,000 sales. The change defines Mazda as a Large Volume Manufacturer starting in the 2018 MY. By any measure − such as market share in California, the U.S., or global markets; annual revenue and profitability; global production; number of employees; annual R&D investment; marketing resources; or market capitalization − Mazda is NOT a Large Volume Manufacturer. Mazda is very similar to the remaining IVMs and, we respectfully urge, should be similarly defined as an IVM. Mazda's available resources to develop the necessary vehicles and technology in the timeframe envisioned are much more limited than the current- and newly-defined LVM's, some of which have been working to reach this point for 20 years.

Mazda is committed to developing and introducing technology to significantly reduce GHG emissions in our new vehicles. We believe the best approach to achieve real-world GHG reductions is to develop technology that can applied across our product line and made available to all of our customers at an affordable cost. To achieve this objective, and to contain the needed development costs and manpower within our limited resources, we are taking a step-by-step approach for development of these technologies, starting with the introduction of our SKYACTIV TECHNOLOGY. The SKYACTIV TECHNOLOGY include new highly efficient high-compression gasoline and clean diesel engines, new 6-speed automatic and manual transmissions with improved efficiencies over previous designs, and newly-designed vehicle chassis and suspension components focused on improving performance and reducing weight.

The first vehicle being introduced in the U.S. which incorporates many components of the SKYACTIV TECHNOLOGY is the 2013 MY CX-5 SUV, which has a highway fuel economy rating as high as 35 miles/gallon, best-in-class for a crossover vehicle, including hybrid powered crossover vehicles. Mazda is working to develop electric hybrid and battery electric vehicles for the future. We have announced a small evaluation fleet of electric vehicles to be established later this year in Japan. From this evaluation program we hope to gain valuable feedback regarding the battery and other technical features that will serve as inputs for future Mazda EV development. However, we do not foresee that our efforts will enable us to comply with the stringent Zero Emission Vehicle requirements that are proposed to start in the 2018 MY if we are categorized as an LVM.

In addition to the significant level of resources required to develop advanced technologies for EVs, it is necessary that vehicles be not only produced, but sold in numbers sufficient to meet the annual credit requirements. However, for companies with limited financial and R&D resources, such as Mazda, marketing such vehicles is another significant burden. Attracting customers to new and unique technologies requires substantial advertising and marketing resources. We believe this is substantially more difficult for smaller companies, such as Mazda, and will require an even larger portion of the overall marketing resources than for larger manufacturers.   This simple reality puts Mazda at a distinct disadvantage to many of our large competitors.

In the proposal for the revisions to the Zero Emission Vehicle program, there is no difference in annual minimum percentage requirements between the LVM and IVM categories.   The only differences between the two categories are additional, limited compliance flexibilities available to IVM's, apparently in recognition of the significant development and marketing challenges the requirements place on these smaller companies.   As with the GHG over-compliance allowance mentioned above, Mazda views the modest flexibilities afforded the IVM's as necessary to us in order to achieve compliance with the new requirements.

We understand that the Advanced Clean Car Regulations are meant to be technology-forcing in order to promote development and adoption of new and cleaner vehicles technologies. However, we believe that the rate of technology development envisioned by the regulations should not exceed individual companies' abilities to develop, implement and market the technologies.   We respectfully request that ARB review the proposed changes to the Large Volume Manufacturer definition, specifically as it applies to Mazda.   We are confident that after a thorough review ARB will agree that it is not appropriate to categorize Mazda in the Large Volume Manufacturer category.

We suggest the following changes to the regulatory language for the IVM and LVM definitions:

> *A manufacturer is classified as an IVM if it has average annual California sales for the three previous consecutive model years;*
>
> - *Between 4,501   and 20,000 per year, or*
> - *Between 20,001 and 40,000 per year and average annual global sales of less than 1.8 million vehicles per calendar year.*

> *A manufacturer is classified as an LVM if it has average annual California sales for the three previous consecutive model years;*
>
> - *Exceeding 40,000 per year, or*
> - *Exceeding 20,000 per year and average annual global sales exceeding 1.8 million vehicles per calendar year.*

We believe these minor changes in the wording of the definitions are sufficient to resolve our concern.

While the secondary criteria approach is our preferred solution, we are open to other potential solutions that achieve the same end.

Thank you for considering our views.

Sincerely yours,

Barbara Nocera

Barbara Nocera
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