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January 25, 2012
CL12-0003

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

Air Resources Board Members:

Subject: Mitsubishi Motors Comments Regarding the Advanced Clean Car Regulations

On behalf of Mitsubishi Motors North America and Mitsubishi Motors Corporation, Mitsubishi Motors R&D of America (Mitsubishi Motors) submits the following comments regarding the Advanced Clean Car Regulations as proposed on December 7, 2011. In general, Mitsubishi Motors supports the proposed criteria pollutant regulations and the harmonization of GHG regulations except for some details important to our company. Our concerns, as well as our recommended solutions are provided in this letter.

This letter does not provide an exhaustive review of the Advanced Clean Car Regulations. As a member of the Alliance of Automobile Manufacturers (Alliance), Mitsubishi Motors supports the detailed Alliance comments submitted separately and requests their incorporation by reference with one exception -- Mitsubishi Motors remains silent on the issue of ZEV offsets based on over-compliance with the federal GHG standards.

Mitsubishi Motors would like to acknowledge the ARB Staff's willingness to work with our staff in an open and cooperative process. ARB Staff made themselves available for meetings, phone calls, and web meetings, and responded to many of our emails. Especially concerning the LEVIII regulations, ARB Staff's professionalism and willingness to meet and discuss the issues in a cooperative manner directly contributed to a regulation that properly balances the need for cleaner, more efficient vehicles with the realities of consumer demand and vehicle technology development, validation, certification, production, and use.

Generally, our comments address four specific issues:

1. Ending the Independent Low Volume Manufacturer (iLVM) Category
2. No Travel Provision for current iLVMS
3. Disconnect between LEV III and ZEV 2.0 – Ending Travel Provision in 2018MY
4. Clean Fuel Outlet proposal is a technology mandate for hydrogen fueling and does not allow compliance with other Low Carbon Fuel infrastructure.

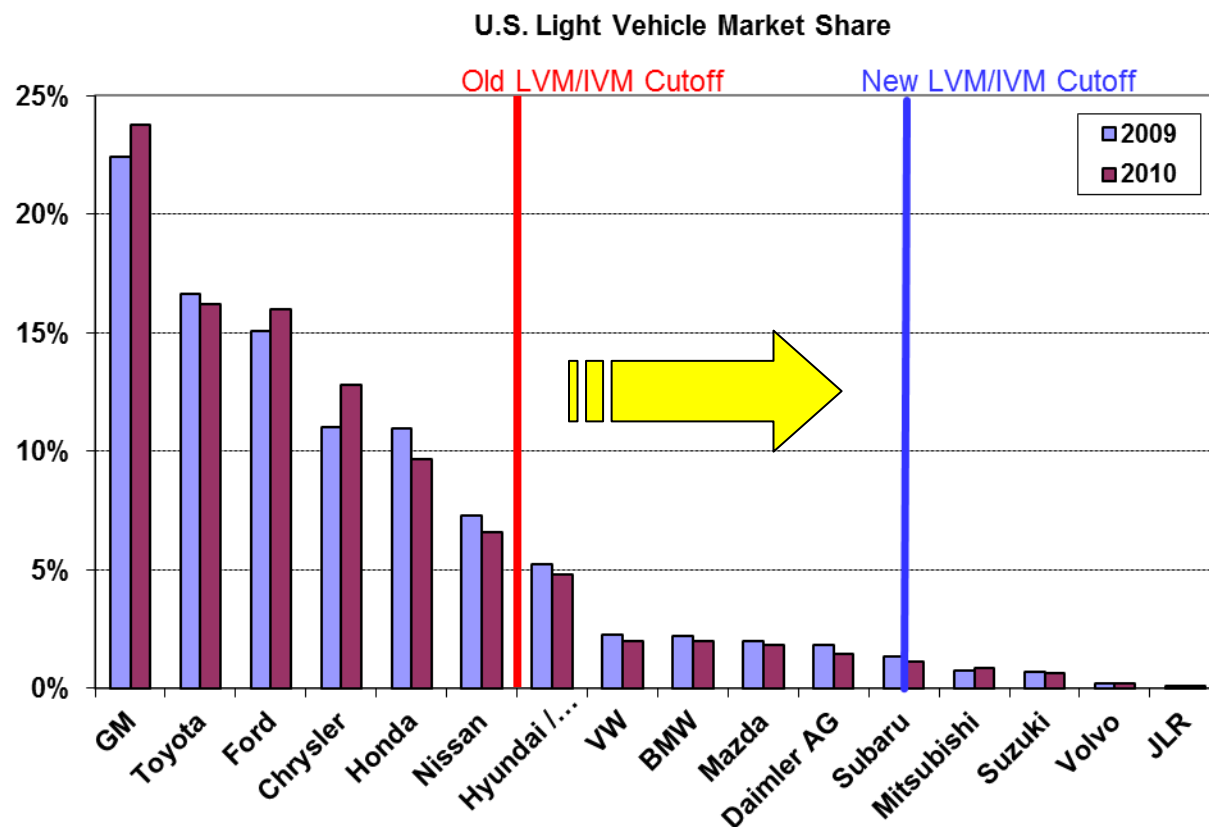
Mitsubishi Motors Statement of Fundamental ZEV Mandate Concepts

- All true ZEVs should have premium value over non-ZEVs – careful consideration of new concepts should not devalue true ZEVs.
- All ZEVs should have similar credit value – large multipliers are not logical – one car replaces one car. Staff's proposal is directly correct establishing a linear relationship for ZEVs from 1 to 4 credits.
- ZEVs should not be required in areas not prepared to develop sufficient infrastructure – this affects the Travel Provision and ZEV Compliance Pools.

Specific Mitsubishi Motors Comments

1. Ending Independent Low Volume Manufacturer (iLVM) Category

Acting on Board direction, Staff redefined the upper limit of Intermediate Volume Manufacturer (IVM) to 20,000 vehicles annually based on a three year average from the previous value of 60,000 vehicles.



This new definition now clearly separates truly small OEMs from large OEMs. Following the disclosure of ARB's decision to lower the limit to 20,000 vehicles, Mitsubishi Motors learned that ARB Staff planned to dissolve the existing iLVM (4501 – 10,000 vehicles) classification.

Therefore, only three classifications would remain:

- a. Large Volume OEMs – 20,000 and up
- b. Intermediate Volume OEMs – 4501 to 20,000, and
- c. Small Volume OEMs – 4500 and less.

When Mitsubishi Motors discussed this matter with ARB Staff, Mitsubishi Motors was assured the “new” IVM classification would have similar requirements to the previous iLVM since the remaining companies were mostly iLVMs. This classification is small; ARB Staff’s analysis found all “new” IVMs combined sales volume is approximately 3% of annual California sales and barely affects overall ZEV sales goals. In fact, the proposed “ZEV offsets based on over-compliance with the federal GHG standards” would have much, much larger effects on ZEV sales volumes than all IVMs combined.

Mitsubishi Motors and other IVMs met with ARB Staff numerous times to discuss a compromise between the current iLVM standard -- no ZEV requirement -- and the new LVM standards. In the fall of 2011, ARB Staff disclosed their decision -- without sufficient justification -- ending the iLVM classification (ISOR 2.2.1, page 27). These the “new” IVM requirements are identical to LVM requirements with one exception (“Flexibility”) – IVMs may comply with credits generated from TZEVS.

Unfortunately, this is not a realistic flexibility for two reasons:

- a. TZEVS, by definition, generate less credit than BEVs or FCVs and therefore IVMs would need much larger fleets of TZEVS than BEVs. For example, if overall ZEV credit requirement is 12% (2021MY), then nearly 24% IVM vehicles sold would need to be TZEVS to comply. Historically for ZEV compliance, IVMs maintained PZEV percentages much higher than LVMs– this would create a similar discontinuity for IVMs with TZEVS.
- b. TZEVS do not qualify for the travel provision. Therefore, IVMs would be required to comply with ZEV Mandate with separate TZEV fleets in CA and Section 177 States – this increases the fleet required for compliance significantly.

Possible Solutions

- a. Return to former iLVM standard – no ZEV Mandate, or more appropriately,
- b. Create a new IVM specific program – for example:
 - Allow IVMs to comply with the same PERCENTAGE (not credit) requirement of TZEVS.
 - Allow IVMs to Travel TZEVS through 2017MY

Most importantly, ARB staff needs to consider an appropriately designed program with input from IVM OEMs. “One size **DOES NOT** fit all.”

2. No Travel Provision for current iLVMs (through 2017MY).

ARB Staff has included (ISOR Section 2.1.2, “Travel Provision”) specific clarifying language to prohibit travel provision credits for iLVM OEMs such as Mitsubishi Motors through 2017MY. As

discussed above, this is detrimental considering we must fully comply with ZEV 2.0 in 2018MY without sufficient credits.

Previously, ARB Staff stated that iLVM OEMs are not allowed to gain travel provision credits. When asked to identify the regulatory language that prohibits iLVM travel provision credits, ARB Staff stated that it was the "intention" of the regulation. ARB Staff mentioned they are concerned that non-traditional OEMs (EV-only OEMs) would utilize the travel provision to gain credits for sale.

Therefore, this additional regulatory language is added to legitimize their previous finding without regard to the regulated parties. Regardless of OEM size, ZEV vehicles and the credits generated from these vehicles are highly valuable. ARB Staff action devalues ZEV credits from all iLVM OEMs. Given that iLVMs will be reclassified in 2018MY, these credits may be necessary for compliance and therefore, very valuable to transitioning iLVMs such as Mitsubishi Motors.

Solution - Allow OEMs required to comply in 2018MY to bank Travel Provision credits. This will eliminate ARB Staff's problem of non-traditional OEMs from stockpiling credits for sale and allow current iLVMs to transition to IVM status in 2018MY.

3. Disconnect between LEV III and ZEV 2.0 – LEVIII Pooling and Ending Travel Provision.

LEV III developed CA and 177 pool starting in 2018MY to adapt to each state's unique vehicle purchase patterns while requiring overall fleet compliance. ZEV 2.0 eliminates the Travel Provision in 2018MY (in effect, pools the results of all states) which returns ZEV compliance to a state by state basis. Considering the lack of EV infrastructure development, this could force EV sales in states unprepared for EVs.

On January 24, 2012, Tom Cackette notified our staff that the LVM OEMs had concluded their negotiations for an Optional Compliance Path to creating two compliance pools outside of California. While Mitsubishi Motors generally agrees to the concept, none of the details for iLVM/IVM compliance were discussed with the affect OEMs.

Solution

ARB, 177 and iLVM/IVM OEM staff should work to establish specific details to ensure iLVM/IVMs may participate in this Optional Compliance Path.

4. Clean Fuel Outlet proposal is a technology mandate for compressed hydrogen fueling and does not allow other Low Carbon Fuel infrastructure for compliance.

ARB Staff's proposed revision to the Clean Fuel Outlet (CFO) regulation creates a technology mandated for compressed hydrogen fueling. While ARB Staff is very concerned about the challenges to creating compressed hydrogen fueling stations, we see this as an opportunity to address the general issue of infrastructure for all alternative low carbon fuels.

In particular, DC Quickcharging is a technology ready to support the rapid commercialization of BEVs. Currently, the worldwide standard – CHAdeMO – recharges BEV quickly and reliably to 80% level in 30 minutes or less. At this time, 1009 CHAdeMO DC Quick charger are installed -- Japan 833 Europe 160 and Other 16. In fact, Estonia recently ordered 200 CHAdeMO DC chargers to create the world's first nationwide Quickcharging network for EVs.

Here in California, 3 units are installed – public station in Vacaville, public facility co-located with a 7-11 in San Bernardino and at our headquarters in Cypress. Our CHAdeMO station is available to the public and we host a number of Nissan Leaf and Mitsubishi i-MiEVs each day.

While Mitsubishi Motors believes the majority of charging will happen at the user's residence or workplace, these DC Quickchargers are shown to support the increase functionality of BEVs. This allows the use of smaller battery packs sized for average daily use (up to 40 – 60 miles) that promotes daily night time charging.

While Mitsubishi Motors recognizes the seemingly insurmountable challenges to creating a commercially viable compressed hydrogen fuel cell vehicle and attendant infrastructure, we see the development of DC Quickcharging as well as compressed natural gas (CNG) as appropriate low carbon fuel infrastructure goals.

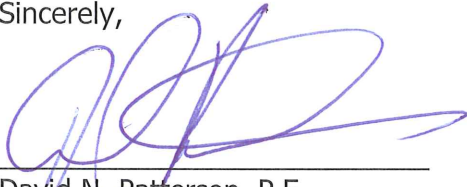
Solution

The regulated parties should be able to select any "Clean Fuel" – hydrogen, CNG, electricity, or other low carbon fuel infrastructure that maybe developed in the future.

ARB Staff proposed to "study" the inclusion of DC Quickcharging. As shown above, DC Quickcharging is currently being installed worldwide and through the DOE's EV Project. Clearly, it does not require any studies and should be included as compliance option.

Mitsubishi Motors appreciate your consideration and look forward to working with you and the ARB staff to implement these ambitious regulations. If you have any questions regarding these proposals, please feel free to contact me at (714) 372-9510 or david.patterson@na.mitsubishi-motors.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'D. Patterson', with a horizontal line underneath.

David N. Patterson, P.E.
Chief Engineer,
Regulatory Affairs and Certification

Cc: Margo T. Oge, U.S. EPA
Chet France, U.S. EPA