



Hyundai America Technical Center, Inc.
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July 26, 2024

Via Email: cleancars@arb.ca.gov

Via docket: <https://ww2.arb.ca.gov/public-comments/comment-log-advanced-clean-cars-ii-amendments-june-workshop>

Ms. Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Chair Randolph,

Hyundai America Technical Center, Inc. (HATCI) appreciates the opportunity to provide comments on the proposed amendments to the Advanced Clean Cars II (ACC II) regulations discussed during the California Air Resources Board's (CARB) June 26, 2024 workshop. HATCI is the U.S.-based research and development (R&D) branch for both Hyundai Motor Company (HMC) and KIA Corporation (Kia), and together with HATCI, are collectively referred to as Hyundai Motor Group (HMG). HATCI is commenting on behalf of both HMC and Kia. Additionally, HATCI supports the comments submitted by the Alliance for Automotive Innovation (AFAI) regarding the ACC II amendments.

HMG agrees with CARB's decision to review the U.S. Environmental Protection Agency (EPA) Multi-Pollutant Emission Standards for Model Years 2027 and Later for Light-Duty and Medium-Duty Vehicles final rule before proceeding on proposed amendments to ACC II's Greenhouse Gas (GHG) and Low-Emission Vehicle IV (LEV IV) criteria standards. HMG appreciates where alignment with the EPA final rule is being proposed and looks forward to more engagement in the amendment process.

Light-Duty GHG standards

As presented in the June 26 workshop, CARB is proposing an Internal Combustion Engine (ICE)-only GHG fleet average standard beginning in model year (MY) 2030. HMG understands CARB's desire to update the GHG standard and requests CARB to create consistency and align with the EPA GHG standards in the forthcoming MY 2027 multipollutant rule, including electric vehicles (EV)s. Harmonizing CARB's GHG standards with those set by the EPA is critical to streamlining regulatory compliance.

CARB presented a slide during the workshop titled "Technologies available today can further reduce emissions from Light-Duty ICEVs", including lightweighting, Advanced Engine Technologies and Hybridization. HMG has incorporated all these technologies into our product plans, including expanding hybrid options in both the Hyundai and Kia vehicle line-ups, increasing the quantity of Hybrid Electric



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Vehicles (HEVs) in MY 2026 and beyond. By investing in these technologies, HMG is able to both lower the environmental impact of our vehicles and meet ongoing regulatory requirements to reduce emissions.

Off-Cycle Credits

HMG appreciates CARB's proposal to phase out Off-Cycle credits in alignment with the EPA multipollutant final rule. This is an important move towards ensuring consistent and effective emission reductions across the industry. In additional support of this alignment, we suggest CARB consider adopting a phase out schedule similar to EPA's timeline. We request that CARB eliminate the minimum sales percentage requirement associated with the off-cycle credits in 13 CCR § 1961.3 (a)(8)(A). Harmonizing the phase-out schedule and eliminating the minimum sales percentage requirement will streamline this transition, allowing HMG to allocate resources towards solutions that reduce emissions without the added complexity of managing sales targets.

Air Conditioning (AC) Refrigerant Leakage Credits

HMG is in agreement with CARB that leakage credits should continue to be included in the ACC II regulations. HMG believes this credit will continue to be an essential incentive for the automotive industry to ensure anti-leakage designs in vehicles. HMG does not support the proposal for a ZEV specific leakage standard or design requirement. HMG fully transitioned to HFO-1234yF in MY 2021, and with the finalization of the American Innovation and Manufacturing (AIM) Act, expect the rest of industry to be compliant with low-GWP refrigerants soon. While we understand the intent, we believe a specific standard poses unnecessary burden that would impact manufacturers and consumers with increased costs and product development delays, with minimal environmental benefit.

Light-Duty Criteria Standards

HMG appreciates CARB's decision to maintain the NMOG + NOX fleet average standard in the regulations. This decision supports continuity and stability needed for industry to focus resources towards advancing technologies that reduce emissions while still meeting requirements set forth by CARB.

Bins

As noted in our comments submitted for the November 2023 workshop, for consistency and to reduce test burden, HMG believes it is appropriate for CARB to align certification bins with the EPA. While we continue to advocate for full alignment of certification bins with the EPA rule, we recognize and appreciate the proposal to eliminate the Cleaner Car provision. This action will provide greater flexibility in meeting emission standards for certification.

Particulate Matter

CARB is proposing to lower the particulate matter (PM) standard to 0.5 mg/mi for the FTP and US06 test cycles, consistent with the EPA Tier 4 standards in the multipollutant rule. HMG's R&D is incorporating significant design changes, which include the addition of a gasoline particulate filter (GPF) for several models to meet this target for the ACC II regulations. While the implementation of this PM standard



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presents many challenges, HMG recognizes CARB's decision to harmonize with the EPA Tier 4 standards for consistency and supports aligning with the EPA multipollutant final rule in MY 2030.

Evaporative Emissions: Non-Integrated Refueling Canister Only System (NIRCOS)

HMG appreciates the proposal to extend preconditioning procedure to all vehicle types. HMG has advocated for this update and has plans to apply NIRCOS to all our HEVs, beginning with the MY 2026 Hyundai Palisade (LX3) HEV. The adoption of these procedures demonstrates HMG's commitment to leading in advanced emission control technologies.

High Altitude Emission Standards

HMG believes there are significant challenges associated with CARB requiring increased high altitude emission standards. There are currently a limited number of facilities capable of conducting high altitude emission testing, which are in high demand by multiple manufacturers. High altitude emission standards would also require costly vehicle system redesigns, resulting in higher vehicle costs for consumers. For all these reasons, HMG supports AFAC's position, recommending alignment with the EPA Tier 4 standards, eliminating high altitude standards for US06, SC03 and 50F. HMG is in the process of conducting high altitude testing, and welcomes discussion with CARB on this topic in the future.

ZEV Assurance Measures

Environmental Performance Label (EPL)

HMG recognizes CARB's concern that the EPA/DOT Fuel Economy label currently does not contain information that is informative for zero emission vehicles (ZEVs). HMG strongly urges CARB to coordinate with the EPA on creating a single, unified label for all vehicles. The presence of multiple labels with similar but slightly different metrics could overwhelm and cause confusion for consumers. A single label that includes consistent, accurate and credible information on both fuel economy and ZEV metrics simplifies the decision-making process to better serve consumers. HMG supports the work of the Mobile Source Technical Review Subcommittee (MSTRS) in creating a work group to gather useful and updated information on ZEVs for the Monroney label.

Charging Interoperability

Beginning in MY 2028, CARB is proposing battery electric vehicles (BEVs) and fast charge plug-in hybrid vehicles (PHEVs) require the implementation of DIN SPEC 70121 and ISO 15118-2. HMG looks forward to further detailed guidance on which specific features of DIN SPEC 70121 and ISO 15118-2 will be implemented in the timeline, and associated conformance testing.

Battery Labeling – 1962.6

HMG appreciates CARB's engagement with the automotive industry on battery labeling and certification concerns in the ACC II 1962.6 regulations and looks forward to receiving formal guidance on the topics discussed to have adequate time to implement the requirements.



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North American Charging Standard (NACS)/ SAE J3400

To reiterate our submitted comments to the November 2023 workshop, HMG urges CARB to include NACS (J3400) as an option to meet compliance with ACC II's charging requirements. With the finalization of J3400 expected soon, HMG believes it is timely and beneficial for CARB to eliminate the requirement to supply an adapter for EVs equipped with either an SAE J3400 or an SAE J1772 port.

Conclusion

HMG thanks CARB for the opportunity to comment and be involved in ongoing dialogue in this regulation process. HMG is committed to working with CARB to address the complexities and challenges in meeting the proposed standards, while also working towards our shared electrification goals.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Willard".

Richard Willard
Director, Regulation & Certification
Hyundai America Technical Center, Inc.