



AUTO ALLIANCE

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October 8, 2018

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Re: Comments to CARB Proposed 2018 Improvements to Vapor Recovery Nozzle and Vehicle Fill Pipe Specifications

Dear Mr. Gordon and Mr. Dinkler:

The Alliance of Automobile Manufacturers (“Alliance”) is an association representing 12 manufacturers of cars and light trucks. Alliance members are BMW Group, FCA US LLC, Ford Motor Company, General Motors Company, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche Cars North America, Toyota, Volkswagen Group of America, and Volvo Car USA. Together, our members represent approximately 70% of new car sales in the United States.¹

Alliance members have been cooperatively working with you and with other CARB staff via the SAE Refueling Interface Task Force and other initiatives to incorporate changes to SAE J1140. We are grateful for your contributions to this important work.

The Alliance also provided comments on CARB’s May draft proposal via a letter dated June 29, 2018. We appreciate your consideration of these comments as reflected in CARB’s September 4 proposal. We strongly support CARB’s proposal to phase-in the General Design Specifications in Section III “when a manufacturer is changing the design of their vehicle’s fill pipe head for model year 2024 and subsequent vehicle fleets” and CARB’s proposed definition of “fill pipe head” in Section II. This will save manufacturers millions of dollars as compared to forcing changes to be

¹ For more information, please visit www.autoalliance.org.

made on existing models. We also support CARB's September 4 proposal to allow "an attestation that vehicle fill pipe meets the proposed Bench Leak Rate." This will allow manufacturers to attest based on validation testing conducted during the normal course of business rather than requiring additional testing as part of the time-constrained certification process.

Regarding the September 4 proposal, the Alliance provides the following recommendations to CARB as these proposals are considered for finalization:

Section II 2. "Vapor recovery nozzle": The Alliance recommends changing "for the purpose of these specifications, means a nozzle, unleaded or leaded as appropriate for fueling vehicles" to "for the purpose of these specifications, means a nozzle for fueling vehicles". References to leaded nozzles should be removed.

III A. a. Fill Pipe Sealing Surface: The Alliance recommends maintaining the existing planar definition for the fill pipe & nozzle interface. The 2.5mm dimension interpretation as a crush zone for the nozzle cushion is preferred. Additionally, if this interpretation is not recognized by CARB, the existing interpretation for ISO 13331 needs to be properly spelled out in the regulation for usage until the changes are phased in.

Recommended changes for item A. Fill pipe sealing surface, adding to ISO 13331-1995(E), as adopted June 1, 1995 Section 3.1:

- a. "Fill pipe sealing surface" means portion of the fill pipe face which would contact the vapor recovery nozzle boot face. ~~For purposes of this specification, this is the portion of the fill pipe face which would contact the 40 degree tapered zone in Figure A.~~
- b. Diameter of the sealing surface of the fill pipe shall have a maximum diameter of 57.59 mm, ~~and the convex portion shall have a maximum radius of 6 mm.~~
- c. Fill Pipe surfaces outside of the 57.59 mm diameter of the sealing surface are allowable so long as it does not infringe into the 40 degree tapered access zone, which extends to a maximum depth of 12 mm back from the sealing surface of the fill pipe as described in Figure A ~~access zone below.~~

III B. a. Internal Locking Lip Depth: The Alliance recommends changing the proposed locking lip depth from 4-11mm to 4-12mm to allow for stack-up conditions within the 100-degree swing of the nozzle on a SAE-recommended thread.

III.B.d The Alliance recommends using the same terminology for the proposed update. "Update", "modification", "supplement", and "provisions" are used in different sections to describe the proposed update.

III.C The Alliance recommends using the same terminology for the proposed update. “Update”, “modification”, “supplement”, and “provisions” are used in different sections to describe the proposed update.

III.D The Alliance suggests that this section is not necessary if the seal surface diameter is 57.9mm max in previous sections and matches proposed drafts from the SAE Refueling Taskforce.

Figure A:

- Figure A needs clarity on the definition of the zone.
 - With the current figure if tapered zone starts at, for example, 52.0mm seal surface, the 40° clearance zone would end before reaching the 86mm outer range, and is not defined.
- The Alliance proposes replacing Figure A with Figure 1 below.
 - This establishes a fixed zone for the nozzle bellows referenced in CARB TP-206.
 - Fixing the zone allows for the clearance and relevance to spherical, conical, and planar nozzle boots.

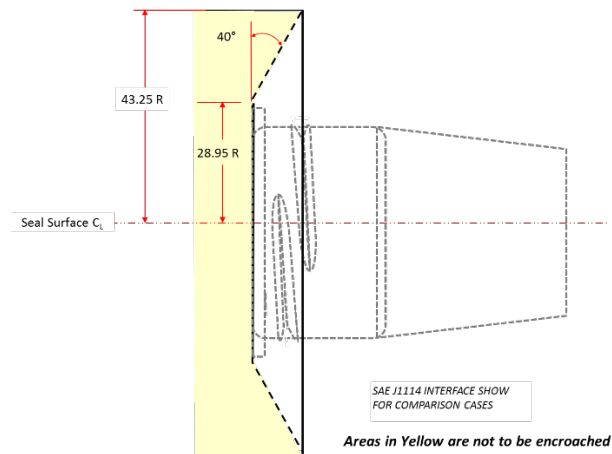


Figure 1

VI

- The safety factor definition is unknown.
- Vehicles with a 2.5mm equivalent orifice meet the 0.5 V/L requirement.
- Variability of the Healy nozzle to discriminate should not drive significant safety factors into vehicle OEM equipment.
- The Alliance recommends further analysis to determine an agreeable acceptance criteria. If further analysis cannot be completed for this rulemaking, Alliance recommends 4.0 SPLM acceptance criteria.

VII

- Nozzle to be used needs to be described.
- The Alliance recommends a standardized fixture be developed.
- Change “A minimum of five tests with each chose nozzle” to “A minimum of five tests with each chosen nozzle”
- The word “test” should be plural – “~~millimeter~~ milliliter during the first five tests”.

Other Suggestions:

- For clarity, the Alliance suggests that outline callouts use the same format as the outline. For example, we suggest “Section 7” be stylized “Section VII”. Section II uses numerals for sub-items, but all other sections use letters.

Specific and Additional Stationary Equipment Comments to Lou Dinkler, CARB:

CP-201 and CP-207

- Regarding documentation of the nozzle specifications, the Alliance suggests that the spout diameter range be adjusted to match with the current and sustained J285 dimensions of 20.5-21.34mm.
 - Reducing the range to 20.12mm can have detrimental consequences for developing a device to preclude Urea/SCR nozzles from opening a nozzle prevention device.
 - ISO 22241 for Urea/SCR systems require devices to accept Urea/SCR nozzles as large as 20.0mm to be accepted.
 - A Petrol nozzle this small with wear will fit into a Urea System.
 - This would give 0.1mm of range for acceptance/rejection between the 2 styles of nozzles.

The Alliance looks forward to continuing to work with CARB on proposed modifications to the filler tube opening. If further discussion is necessary, the Alliance offers to facilitate a teleconference prior to the Board hearing on October 25.

Sincerely,



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