

State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text

**PROPOSED AMENDMENTS TO CALIFORNIA SPECIFICATIONS FOR FILL PIPES
AND OPENINGS OF MOTOR VEHICLE FUEL TANKS**

Public Hearing Date: October 25, 2018

Public Availability Date: April 5, 2019

Deadline for Public Comment: April 22, 2019

At its October 25, 2018, public hearing, the California Air Resources Board (CARB or Board) approved for adoption the proposed amendments to section 2235, Title 13, California Code of Regulations, which incorporate by reference amendments to Specifications for Fill Pipes and Openings of 2015 and Subsequent Model Motor Vehicle Fuel Tanks, that introduce a new performance leak standard and additional dimensional specifications for new fill pipe designs.

The Board directed the Executive Officer to determine if additional conforming modifications to the regulation were appropriate and to make any proposed modified regulatory language available for public comment, with any additional supporting documents and information, for a period of at least 15 days as required by Government Code section 11346.8. The Board further directed the Executive Officer to consider written comments submitted during the public review period and make any further modifications that are appropriate available for public comment for at least 15 days, and present the regulation to the Board for further consideration if warranted, or take final action to adopt the regulation after addressing all appropriate modifications.

The resolution and all other regulatory documents for this rulemaking are available online at the following CARB webpage:

<https://ww2.arb.ca.gov/rulemaking/2018/california-specifications-fill-pipes-and-openings-motor-vehicle-fuel-tanks>

The text of the modified regulatory language is shown in Attachments A and B. The originally proposed regulatory language is shown in ~~strikethrough~~ to indicate deletions and underline to indicate additions. The format of new deletions and additions to the proposed language that are made public with this notice is indicated in each particular document.

In the Final Statement of Reasons, staff will respond to all comments received on the record during the comment periods. The Administrative Procedure Act requires that

staff respond to comments received regarding all noticed changes. Therefore, staff will only address comments received during this 15-day comment period that are responsive to this notice, documents added to the record, or the changes detailed in Attachments A and B.

Summary of Proposed Modifications

The following summary identifies CARB staff's proposed modifications to the following documents:

- Specifications for Fill Pipes and Openings of 2015 and Subsequent Model Motor Vehicle Fuel Tanks (incorporated in the regulation by reference in California Code of Regulations, Title 13, § 2235)
- Application for Compliance with Fill Pipe Requirements

The following summary does not include all modifications to correct typographical or grammatical errors, changes in numbering or formatting, nor does it include all of the non-substantive revisions made to improve clarity.

Changes to Specifications for Fill Pipes and Openings of 2015 and Subsequent Model Motor Vehicle Fuel Tanks:

III. General Design Specifications

Figure A was added and Subsection D was deleted to clarify which fill pipe drawing and specifications should be used when a manufacturer elects to use the SAE J1114 alternative filler pipe sealing surface shape, depending upon the vehicle model year and whether the fill pipe head design is being changed. Figure A denotes Alternate Shape 2, which applies for 2024 and subsequent model year vehicles using SAE J1114's alternate shape and that are changing their fill pipe head designs. This figure reflects the appropriate access zone and seal surface diameter in order to make a good seal with California's vapor recovery nozzles, and reflects the latest draft revisions to SAE J1114's alternate shape developed by the SAE Fuel Systems J285/J1140 Task Force (SAE Task Force) at the time of this writing.

Subsection A:

Subsection A.a: The language in the definition of "Fill pipe sealing surface" indicating that the sealing surface would contact the 40 degree tapered (access) zone is being removed to simplify the definition.

Subsection A.b: CARB incorporates both ISO 13331 (seal surface shape) and SAE J1114 (alternate seal surface shape) by reference, and each have slightly different maximum seal surface diameters. For uniformity in the seal surface maximum diameter for all fill pipes, the maximum seal surface diameter is proposed to be 57.9mm for all fill

pipes. Additionally, the language indicating the seal surface should have a maximum radius of 6mm is being removed to simplify the seal surface definition.

Subsection A.c: The 12 mm additional access zone depth was inaccurately referred to as a “maximum” for the tapered access zone depth. “Maximum” is being removed, but the 12 mm depth will be maintained.

Figure B: The additional access zone illustration shown in Figure B was changed to closely resemble the shape for the access zone recently developed in the SAE Task Force. This new figure is drawn to show that the front-most section, which terminates at the 12 mm depth boundary, would vary in shape depending upon the diameter of the fill pipe sealing surface. Different colors are used in Figure B to differentiate the additional access zone under this regulation from a section of the drawing illustrating the remainder of the access zone for the nozzle boot, shown for reference only. This “reference” portion of the drawing covers area already in the existing ISO 13331 access zone.

VIII. Test Procedure: Bench Leak Rate

Subsection A.a: The settings for the fill pipe height and pipe axis angle during the bench leak rate test have been slightly adjusted to represent CARB’s bench test set-up. These settings also are representative of in-use vehicles. In addition, this new fill pipe axis angle setting was adjusted so that it does not conflict with the setting for assurance against spillage in ISO 13331, which is incorporated by reference in CARB’s fill pipe specification.

Subsection B.a: The automotive industry provided bench leak test data showing that the resulting flow rate can vary depending on the length of the hose between the pressure gage and the nozzle boot. Therefore, to standardize the bench leak test and assure consistent, repeatable results, language allowing vacuum and pressure/flow measurement to occur at different locations in the apparatus is being removed.

Figure C: Because the bench test procedure has become more defined, the illustration in Figure C was updated to reflect the additional specifications in subsections B.a, E, F, and H.

Subsection E: To better standardize the bench leak test and assure consistent results, language is changed to clearly indicate what to do during the bench leak test with the two pre-existing holes in the nozzle boot.

Subsection F: For the same reasons as described above in Subsection B.a, hose dimensions are now stipulated in Table 1, which represent the hoses CARB used for bench leak testing during development of the standard.

Subsection H: The automotive industry provided bench test data using a weight to represent the weight of a refueling nozzle. The data showed a 1.5 kg weight would

accurately represent the hose weight and therefore should not otherwise compromise the bench test. Therefore, an option to attach a 1.5 kg weight to the nozzle instead of attaching a refueling hose for bench leak testing is added.

Subsection I: CARB is adjusting the test performance to more resemble the spitback test: one or more fill pipes with six test iterations instead of six fill pipes each individually tested. CARB believes this should still maintain accurate test verification while reducing the testing burden for manufacturers.

Footnote 1: This footnote was added to clarify nozzle specifications for the bench leak test, as requested by the automotive industry.

XII. Phase-in schedule

Subsection B: The phase-in for the bench leak test is changed to be based on projected volume because manufacturing plans are usually developed prior to actual sales being known.

General non substantive changes (entire document)

In addition to the modifications described above, additional modifications were made to use consistent terminology, “update” was replaced with “modify,” and “supplement” was replaced with “addition.” To improve clarity, outline callouts were changed to match the same format as the outline, which is roman numerals. Also, minor changes to grammar, punctuation, and spelling have been made throughout.

Changes to Application for Compliance with Fill Pipe Requirements:

This form was changed to clarify the fill pipe face clearance dimension and other dimensions affected by the current amendments to California’s fill pipe specification.

Agency Contacts

Inquiries concerning the substance of the proposed regulation may be directed to Jason Gordon, Air Resources Engineer, at (626) 575-7068 or Shobna Sahni, Manager, at (626) 450-6104.

Public Comments

Written comments will only be accepted on the modifications identified in this Notice. Comments may be submitted by postal mail or by electronic submittal no later than 5:00 p.m. on the due date to the following:

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

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

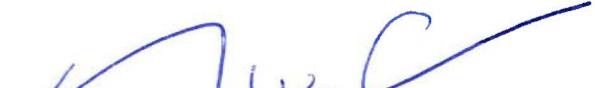
Please note that under the California Public Records Act (Gov. Code § 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

In order to be considered by the Executive Officer, comments must be directed to CARB in one of the two forms described above and received by CARB by 5:00 p.m., on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alterno u otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

CALIFORNIA AIR RESOURCES BOARD



Richard W. Corey
Executive Officer

Date: April 5, 2019

Attachments

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see CARB's website at www.CARB.ca.gov.