State of California
AIR RESOURCES BOARD

PROPOSED SECOND 15-DAY MODIFICATIONS

SPECIFICATIONS FOR FILL PIPES AND OPENINGS OF
2015 AND SUBSEQUENT MODEL MOTOR VEHICLE FUEL TANKS

Adopted: March 22, 2012
Amended: [INSERT DATE OF AMENDMENT]

Note: The following text contains staff’s suggested modifications to these test procedures as set forth in Appendix B of the Staff Report: Initial Statement of Reasons, released September 4, 2018. The originally proposed amendments are shown in underline to indicate additions and strikeout to indicate deletions. The additional 15-day proposed modifications made available with the first 15-day notice are shown in dashed underline to indicate additions and double strikeout to indicate deletions. Further modifications made with this Second Notice of Availability of Modified Text and Availability of Additional Documents are made in bold double underline to indicate additions and bold strikethrough to indicate deletions. Staff is proposing modifications to limited portions of the original proposal; for some portions of the original proposal for which no modifications are proposed, the text has been omitted and the omission indicated by “* * * *.”
**VIII. Test Procedure: Bench Leak Rate**

A. Secure the test fill pipe into the fill pipe mounting fixture.
   a. Fill pipe should be oriented such that:
      i. Fill pipe opening, at center, is at a height of 38 +/- 1 37 +/- 2 inches above the ground.
      ii. Pipe axis angle with respect to horizontal shall be 30 32 +/- 2 degrees.

B. Interconnect the fill pipe, flow meter, pressure gage, and vacuum source, as shown in Figure B Figure C.
   a. Vacuum and Pressure/Flow measurement can occur at different locations in this apparatus, so long as it is representative of what is occurring. Hose shall be routed inside the assist vapor recovery nozzle’s (assist nozzle) boot.
E. The two pre-existing holes in the boot of the nozzle shall either be plugged or the hole(s) can be used for routing the vacuum source into the nozzle. One of the two pre-existing holes in the boot of the assist nozzle shall be used for routing the hose that connects the vacuum source, pressure gage, and flow meter into the nozzle, and the other hole shall be plugged.

F. The hose dimensions shall be as indicated in Table 1.

Figure B: Set-up of Testing Equipment

* * * *
G. Latch an assist type vapor recovery nozzle into the fill pipe using a natural motion as you would when filling up your own car at a gas station.

H. Hose should form a “U” shape, and be within 6-12 inches from the ground at its lowest point. As an alternative to the hose, attach a 1.5 kg weight to the nozzle, at the end where a hose would normally connect to.

I. Adjust the vacuum source until a vacuum level is stabilized to vary no more than 500 +/- 50 Pascal over a two minute period during which no adjustments are made.
   a. Record the flow rate at a vacuum of 500 +/- 25 Pascal.

J. The above measurement procedure shall be repeated with five more fill pipes iterations with the same fill pipe head design.

K. The average of the six flow rate measurements shall meet the specification as indicated in Section 6 Section VI.

For specifications for assist vapor recovery nozzles, see the most recent version of CARB Executive Order VR-202-X, Relating to Certification of Vapor Recovery Systems Assist Phase II Enhanced Vapor Recovery (EVR) System Including In-Station Diagnostics (ISD), Exhibit 1, p. 1, February 15, 2019, incorporated by reference herein.

VII.IX. Specifications to Reduce Damage to Vapor Recovery Nozzles

* * * *