Appendix 6

Frequently Asked Questions and Responses

Appendix 6
Frequently Asked Questions and Responses

1. When will gasoline dispensing facility (GDF) owners be required to have low permeation hoses?

- All existing GDF with vacuum assist hoses (hoses carrying gasoline against the outermost hose wall) will be required to comply four years from the date the first hose meeting the new low hose permeation standards is certified.
- New vacuum assist installations, existing installations undergoing major modifications, or any existing vacuum assist installations that replace hoses after the date the first hose meeting the new hose permeation standards is certified, will be required to comply.
- Facilities with balance systems are not subject to the hose permeation standard.
- Facilities that are exempt from Phase II requirements may be subject to the hose permeation requirement. Owners/operators of such facilities should check with the appropriate local air districts. A list of air district contacts can be found at http://www.arb.ca.gov/vapor/EVR%20District%20Contacts%202011.pdf. If subject, the above timeline for assist hoses applies.

2. I am a GDF owner and have just recently purchased new hoses. Will I be forced to discard my old hoses when the proposed regulation comes into effect?

No, if hoses were purchased before the date when the first hose meeting the new standard is certified. See responses to question 1 regarding replacement hoses.

3. Is low permeation GDF hose technology available?

Yes. Two different GDF hose manufacturers have already demonstrated compliance with the proposed GDF hose permeation standard with prototypes. The technology to control permeation on GDF hoses has been applied to hoses used on small off-road engines and outboard marine tanks.

4. Why did ARB work with Underwriters Laboratories (UL) in developing a low permeation GDF hose certification test procedure?

Working with UL allowed ARB staff to work with other stakeholders such as hose manufacturers, U.S. Environmental Protection Agency, and others to develop a consensus GDF hose permeation standard and test procedure.

5. Why does the UL test procedure in the proposal require removing the inner hose from vapor recovery GDF hose assemblies during permeation testing?

The removal of the inner hose allowed for a longer test period before the fuel starts to degrade and to ensure that the permeation emissions are released into the air and not into the inner hose.

6. Why did ARB and UL decide to use CE-10 test fuel to certify low permeation GDF hoses instead of CA RFG III with 10% ethanol?

CE-10 fuel has the same level of ethanol content as CA RFG III. CE-10 is comprised of only three constituents and can be more tightly controlled than CA RFG III, thus eliminating the issue of fuel variability. In addition most permeation data are based on CE-10 fuel, which means the effectiveness of GDF hose permeation control can be compared with other applications.

7. Why did ARB choose a permeation limit of 10.0 g/m^2/day?

This limit is technically feasible since two manufacturers have prototypes that comply with the limit of 10.0 g/m^2/day for assist hoses. The adoption of this standard will result in a 96 percent reduction in permeation emissions from GDF hoses and is extremely cost effective due to fuel savings.

8. In 2008, ARB staff drafted a proposal for Board consideration that would have required balance hoses to meet the same low permeation standards as those currently proposed for Board consideration. This proposal was withdrawn before it could be considered by the Board. Why does the current proposal not require permeation limits for balance hoses?

The most recent population data showed that the permeation standard was not cost effective for balance hoses. Balance hoses are typically corrugated and applying barrier material on corrugated hoses has not been successfully demonstrated. In addition the amount of permeation from balance hoses is expected to decrease because hydrocarbon concentration in the vapor return line will decrease as the number of on-board refueling vapor recovery equipped vehicle increases.

9. Will hoses continue to meet permeation limits over the life of the hose?

ARB staff is confident that the permeation standard of GDF hose will be maintained over its life. This is based on the evaluation of the same technology used on other hose applications. In those applications, the permeation standard was maintained over a period which was much longer than the two year life of a GDF hose.