ARB 2013 Gasoline Dispensing Facility-Phase II ORVR Emission Factor Update

South Coast AQMD Rule 1401 Working Group
August 16, 2017
Agenda

- Background
- Operation of Vehicle ORVR System
- New Information
- Questions
- Contacts
Background

- ARB staff in 2013 updated gasoline dispensing facility (GDF) emission factors (EF)
- SCAQMD staff recently questioned the validity of the Phase II fueling of ORVR vehicle EF
Vapor Recovery Control of California ORVR Vehicles

With Onboard Refueling Vapor Recovery (ORVR) systems, motor vehicles capture gasoline vapors displaced during refueling.
2013 GDF EF for Phase II Fueling of ORVR Vehicles

- Phase II Fueling Uncontrolled EF is 8.4 lbs/kgal (Non-ORVR Vehicle) - Displaced vapor released at vehicle fill pipe
- Phase II Fueling Controlled EF is 0.42 lbs/kgal (95% Efficiency) - Capture displaced vapor at fill pipe and return to underground storage tank
- Phase II Fueling of ORVR vehicles EF is 0.021 lbs/kgal (additional 95% efficiency for fueling ORVR vehicles)
  - Assume all emissions from ORVR vehicles are released at fill pipe
SCAQMD Staff Concern with Phase II ORVR EF

- Phase II Fueling Uncontrolled EF is 8.4 lbs/kgal (Non-ORVR Vehicles) - Agreement with ARB staff
- Phase II Fueling Controlled EF is 0.42 lbs/kgal (Non-ORVR or ORVR Vehicles without Phase II) - Agreement with ARB staff
- Question that Phase II Fueling of ORVR vehicles does not include an additional 95% control (double counting) - ARB staff disagree
  - SCAQMD staff assume that displaced vapors are controlled by either ORVR or Phase II, but not both
Operation of Vehicle ORVR System
New Information

• ARB staff is evaluating new information from Glenn Passavant (formerly with U.S. EPA and now with Ingevity) which suggests Phase II ORVR emission factor may be greater than 0.021 lbs/kgal
Proposed GDF EF Update Process

- Prepare draft addendum to 2013 GDF EF explaining reason for changing Phase II EVR ORVR EF
- ARB staff internal review and comment
- Consider additional data, if available
- 30 day public comment period of draft addendum to CAPCOA and then public stakeholders
- Final addendum
Questions
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