

# Off-Road Spark Ignited Engine/Equipment Certification

2020 Truck and Engine Manufacturers Association

Compliance Workshop

April 21 - 23, 2020

# Use CA LEV III Gasoline for Off-Road Spark Ignited Engine/Equipment Testing

- New exhaust certification testing starting MY 2020
  - Small Spark-Ignited Engines
  - Large Spark-Ignited Engines
  - Spark-Ignited Marine Engines
- Production-line testing
- For MY 2021, any new zero-hour and deterioration factor (DF) testing
- Manufacturers encouraged to coordinate with CARB and EPA to use same test data

# SSIE Evap: MY 2021+ Design-Based Certification Component EOs

- Previously for MY 2020 certification only, manufacturers were allowed limited use of previously certified components
- For MY 2021+ certification, manufacturers will not be allowed to use previously certified components
  - Manufacturers must provide MY 2020+ certified component EOs for fuel tanks, fuel lines and carbon canisters
  - Verify component EOs in the web link below before submitting:  
<https://ww2.arb.ca.gov/our-work/programs/small-road-engines-sore/sore-evaporative-component-executive-orders>

# Top Certification Issues

## General

- Provide emission warranty statement that meets the regulatory requirements. Manufacturers must submit:
  - Manufacturers' warranty statement
  - CARB's warranty statement (verbatim as required in regulations)
  - A valid warranty service #
- Request manufacturers self evaluate Tamper Resistance Methods before submitting samples

# Top SSIE Evap Certification Issues

- Submit bond worksheet and copy of bond (if applicable)
- Use updated naming convention for evap family name
- Provide a detailed description and schematics of the evaporative emission control system
  - Running loss control description and approval #
  - Include a schematic layout of how the evap system components are configured

# Top SSIE Performance-based Evap Certification Issues

- Measure and report hot soak emissions
- Carbon canister must meet minimum working capacity specified in TP-902
  - At least 1.4 g/L of fuel tank nominal capacity for tanks  $\geq 3.78\text{L}$
  - At least 1.0 g/L of fuel tank nominal capacity for tanks  $< 3.78\text{L}$
- Report carbon canister working capacity in grams/Liter
- No more carry across allowed for evaporative emissions test data

# Top SSIE Design-based Evap Certification Issues

- Continued use of 2019 and older MY component EO numbers
- Listing uncertified evap components in the cert application
- Carbon canister undersized for fuel tank volume
  - Check fuel tank limits specified on canister component EO
  - e.g. Maximum nominal fuel tank volume specified in carbon canister EO is 4L, but mfr using a fuel tank with nominal volume of 5L.