



Off-Road Spark Ignited Engine/Equipment Certification

2023 Truck and Engine Manufacturers Association
Compliance Workshop
May 3, 2023

MY 2023+ Small Spark-Ignited Engine (SSIE) Certification

- Amendments to exhaust and evaporative regulations and test procedures were recently adopted and became effective January 1, 2023
- Amended documents are posted on the SSIE webpage at the following link:
 - <https://ww2.arb.ca.gov/small-road-engine-or-equipment-regulatory-and-certification-documents>

Notable Changes for MY 2023+ SSIE Certification

- Exhaust Certification
 - No special tool tamper-resistance method allowed on new MY 2023+ cert applications
 - Optional Zero-Emission Generator (ZEG) and Zero-Emission Equipment (ZEE) certification
 - Mfrs may optionally declare a CO FEL for an engine family and participate in Averaging, Banking, and Trading (ABT) program

Notable Changes for MY 2023+ SSIE Certification (cont'd)

- Evaporative Certification
 - Evap families $\leq 80\text{cc}$ may certify to meet diurnal emission standards through MY 2023 to generate evap emission credits
 - Small off-road engines/equipment (SOREs) powered with CNG, propane, LPG, or LNG have the option to certify to evap regs to generate evap emission credits

Notable Changes for MY 2024+ SSIE Exhaust and Evap Certification

- Beginning MY 2024, all SORE families, except generators and ≥ 225 cc pressure washers, must meet zero exhaust and evap emission standards (except for CO)
 - Alternatively, mfrs may declare an FEL/EMEL greater than zero to certify using banked emission credits
- Generators and ≥ 225 cc pressure washers are required to meet:
 - More stringent emission standards for MY 2024-2027
 - Zero exhaust and evap emission standards (except for CO) for MY 2028 and later

Notable Changes for MY 2024+ SSIE Exhaust and Evap Certification (cont'd)

- Mfrs may earn certification emission credits for generators and ≥ 225 cc pressure washers through MY 2027
- Minimum emissions durability periods have been increased to the longest of the current allowable durability periods for each displacement category
 - Special case: For MY 2024-2027 ≤ 80 cc generators, minimum durability period is 500 hours

Top Things to Check for Before Submitting SSIE Certification Applications (MY 2023+)

- Exhaust and Evaporative Certification
 - Mfrs must pay cert fees for each new MY 2023+ cert application
 - Mfrs must submit the written instructions for the maintenance and use of the engine/equipment by the owner
- Exhaust Certification
 - DF carry across from one engine family to another is no longer allowed
 - No special tool tamper-resistance method

Top Things to Check for Before Submitting MY 2023 SSIE Evap Cert Applications

- Mfrs should verify their evap component EOs are currently valid at the following link:
 - <https://ww2.arb.ca.gov/our-work/programs/small-road-engines-sore/sore-evaporative-component-executive-orders>
- If a carbon canister is equipped:
 - Check compliance with canister working capacity (based on fuel tank nominal capacity)
 - Verify that the canister is appropriately sized for the fuel tank volume (check canister EO for maximum fuel tank nominal capacity)
- Verify the fuel tank specs declared in the cert app (including significant digits) match the fuel tank specs as specified in documentation (e.g. fuel tank EO, owner's manual, etc.)

Top Things to Check for Before Submitting MY 2024+ SSIE Exhaust & Evap Cert Applications

- **Important:** Certain SORE equipment cannot be combined with other SORE equipment in the same engine/evap family. Each engine/evap family can be comprised solely of, either:
 - Generators, or
 - $\geq 225\text{cc}$ Pressure Washers, or
 - A mix of all other SORE equipment types

Top Things to Check for Before Submitting MY 2024+ SSIE Cert Applications

Exhaust Certification

- List the correct family name on the cert fee invoice and cert application
 - Example: The model year code for 2024 is “R” in the EPA family naming convention
- Mfrs must test the emissions durability engine to at least the minimum specified durability period (which is significantly longer compared to MY 2023)

Top Things to Check for Before Submitting MY 2024+ SSIE Cert Applications

Evap Certification

- Starting 2024 MY, design-based certification for SORE evap is not allowed, including equipment using $\leq 80\text{cc}$ engines
- All evap families must meet hot soak plus diurnal emission standards (as opposed to only diurnal emission standard)
 - Component EOs are no longer required

Top Things to Check for Before Submitting MY 2024+ SSIE Cert Applications

Evap Certification (cont'd)

- Mfrs must meet the fuel cap performance standards, including new fuel cap and tether spill test
 - Required for all evap families, including equipment using ≤ 80 cc engines
- Check that TP-902 emissions test data is not carried across from one evap family to another
- Provide TP-902 lab test report in addition to test data reported in the cert application

Top Things to Check for Before Submitting MY 2024+ SSIE Cert Applications

Evap Certification (cont'd)

- For > 80cc engines not using actively-purged canister, mfrs must perform the new running loss emission control test per amended TP-902 and obtain an MLD approval number to be listed on the cert app
- If carbon canister is equipped, check compliance with canister working capacity (based on fuel tank total capacity)

Updated SORE Certification Application Forms

- Certification application forms will be updated for MY 2024+ and will be issued shortly
 - SORE exhaust certification application form for MY 2024+
 - SORE evaporative certification application form for MY 2024+
 - Optional Zero-Emission Equipment certification application form
 - Optional Zero-Emission Generator certification application form

Large Spark-Ignition Engine \leq 1L Exhaust and Evap Certification (MY 2023+)

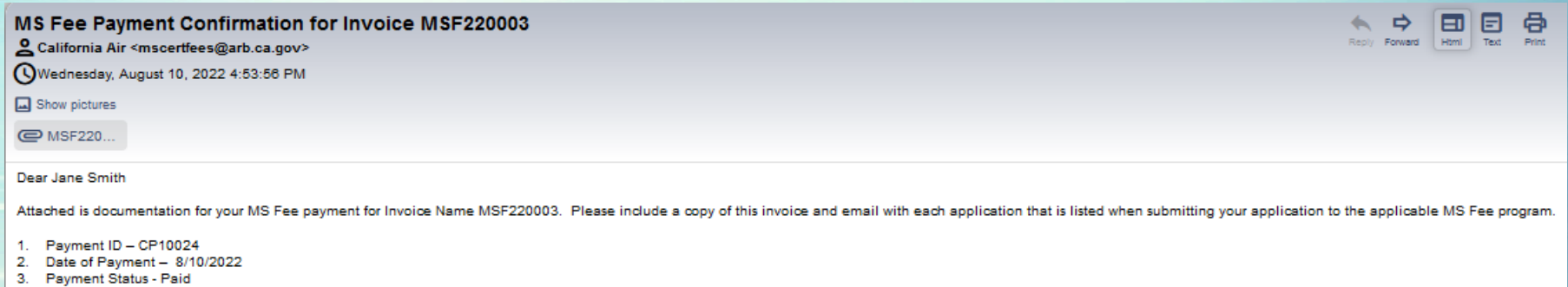
- No changes to emission standards, test procedures, and certification procedures
- Mfrs may continue using design-based certification and current certification application forms
- Mfrs must verify evap component EOs are currently valid at the following link: <https://ww2.arb.ca.gov/our-work/programs/small-road-engines-sore/sore-evaporative-component-executive-orders>

Cert Fees for MY 2023+ Cert Applications

- Mfrs must pay cert fees for each new MY 2023+ cert application
 - <https://ww2.arb.ca.gov/mobile-source-certification-and-compliance-fee-regulation-meetings-workshops>
- Verify correct fee category and fee type are selected on invoice
- The “Unique Application Identifier” is the engine or evaporative family name listed on the cert app
- If not paying the base fee, mfrs must meet the requirements for that reduced fee type
 - e.g. Carryover, Partial Carryover
- Wrong selections and other errors will cause delays

Cert Fees for MY 2023+ Cert Applications (cont'd)

- Mfrs must wait 5 days before submitting payment
- Application review begins when fee for correct fee type is received
- Example of payment confirmation email after payment has been cleared



- Mfrs must include the "Final Invoice" on the first page of each cert app

SSIE & LSIE Certification Page Links

- Small Spark-Ignition Engines

<https://ww2.arb.ca.gov/small-road-engine-or-equipment-regulatory-and-certification-documents>

- Large Spark-Ignition Engines

<https://ww2.arb.ca.gov/large-spark-ignition-engine-regulatory-and-certification-documents>