



Off-Road Spark Ignited Engine/Equipment Certification

2024 Truck and Engine Manufacturers Association
Compliance Workshop
April 24, 2024

MY 2024+ Small Spark-Ignited Engine (SSIE) Certification

- Amendments to exhaust and evaporative regulations and test procedures have been 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>

MY 2024 and Later SSIE Certification Application Forms

- Submit using new certification application forms provided at the following link: <https://ww2.arb.ca.gov/small-road-engine-or-equipment-regulatory-and-certification-documents>

Guidelines

- Certification Application Forms
 - SORE Exhaust Certification Application Form for 2024 and Later Model Years (December 5, 2023)
 - SORE Evaporative Certification Application Form for 2024 and Later Model Years (December 5, 2023)
 - Zero-Emission Equipment Family Certification Application Form for 2023 and Later Model Years (December 5, 2023)
 - Zero-Emission Generator Family Certification Application Form for 2023 and Later Model Years (December 5, 2023)
- SORE Evaporative Model Summary Excel Template for 2024 and Later Model Years (February 8, 2024)
- SORE Exhaust Model Summary Excel Template (updated August 19, 2021)

MY 2024 and Later SSIE Certification Application Forms (cont'd)

- Submit MY 2024+ SSIE Evap model summary using updated Excel template at the following link:

<https://ww2.arb.ca.gov/sites/default/files/classic/msprog/offroad/2024%20Certification%20Form/SORE%20Evaporative%20Excel%20Form/SORE%20Evap%20Model%20Summary-Family%20Name.xlsx>

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|----|--|------------------------|--|----------|---------------------|---------------------------------|----------------------------------|---------|--|--|--------------------------------------|--|-------------------------|---|
| 1 | SORE Evap Model Summary Template (rev. Feb 2024) | | | | | | | | | | | | For CARB Use Only | |
| 2 | | | | | | | | | | | | | Executive Order: U-U- | |
| 3 | Date: _____ | | | | | | | | | | | | Attachment ____ of ____ | |
| 4 | Evaporative Family: _____ | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | |
| 6 | Model Summary | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | S3. Sales Codes (Check all appropriate) | | | | S6. Fuel Tank Volume (Liters) | | | | | | | |
| 9 | S1. Worst Case (Check One) | S2. Equipment Model | CA Only | 50-State | S4. Engine Class | S5. Fuel System (FI or CARB) | Total | Nominal | S7. Fuel Tank Internal Surface Area (m ²) | S8. Fuel Line Type (e.g. Single or Multi-Layer) | S9. Nominal Fuel Line Length (mm) | S10. Fuel Line Inside Diameter (mm) | S11. Engine Family | S12. Carbon Canister Working Capacity (g/L, if equipped) |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |

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
- Mobile Source 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
- The SORE regulation amendments do not apply to stationary generators used for backup power to a home

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 previously allowed durability periods for each displacement category
 - Special case: For MY 2024-2027 ≤ 80 cc generators, minimum durability period is 500 hours
- Any remaining banked diurnal evaporative emission credits earned within the MY 2018 will be invalid for use in the 2024 and later MYs

MY 2024+ SSIE Certification

- Optional Zero-Emission Generator (ZEG) certification provide opportunity for ZEG to earn ZEG exhaust and evaporative emission credits
- Exhaust Certification
 - Mfrs may optionally declare a CO FEL for an engine family and participate in Averaging, Banking, and Trading (ABT) program
- Evaporative Certification
 - 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

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

- Mfrs must ensure cert apps submitted to eFILE are moved to “Ready for Review” status to be considered officially submitted
- Mfrs must 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 submit the written instructions for the maintenance and use of the engine/equipment by the owner
 - Example: Submit an electronic copy of the owner’s manual in PDF format as a support document into eFILE

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

Exhaust Certification

- Deterioration factor (DF) carry across from one engine family to another is not allowed
- No special tool tamper-resistance method
- Mfrs must test the emissions durability engine to at least the minimum specified durability period (which may be longer compared to MY 2023)

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

Evap Certification

- Starting 2024 MY, design-based certification for SORE evap is not an option, including equipment using ≤ 80 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 Evap Cert Applications (cont'd)

Evap Certification

- Mfrs must meet the fuel cap performance standards, including new fuel cap and tether spill test
 - Required for all evap families, including equipment using $\leq 80\text{cc}$ 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 Evap Cert Applications (cont'd)

Evap Certification

- 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)

MY 2024 Limited Term EO Certification Application

- SSIE exhaust/evaporative families that meet MY 2023 requirements may submit requests for limited term EOs using MY 2023 certification forms and templates
- Include statement in comments section: “Mfr requesting limited term EO pending U.S. EPA waiver”
- Limited term EOs will include the following language:

BE IT FURTHER RESOLVED: That the listed engine models are certified based on the information provided by the manufacturer in its application for certification, the manufacturer's attestation that the listed engine models meet all applicable certification requirements for 2024 model year small off-road engines in the 13 CCR Sections 2400 through 2409, and Sections 2750 through 2774, and on CARB staff's review of the information and documents submitted by the manufacturer in support of that attestation.

On December 20, 2022, CARB submitted a request that the United States Environmental Protection Agency (U.S. EPA) grant California an authorization for 2021 Amendments to its Small Off-Road Engine regulation, which establishes emission standards and other emission-related requirements for off-road spark-ignition engines rated at or below 19 kilowatts. If U.S. EPA grants California the authorization for the 2021 Amendments to the Small Off-Road Engine regulation, this Executive Order terminates on the date that U.S. EPA's authorization decision is published in the Federal Register.

- Limited term EOs terminate on the date that U.S. EPA's authorization decision is published in the Federal Register

Large Spark-Ignition Engine \leq 1L Exhaust and Evap Certification (MY 2024+)

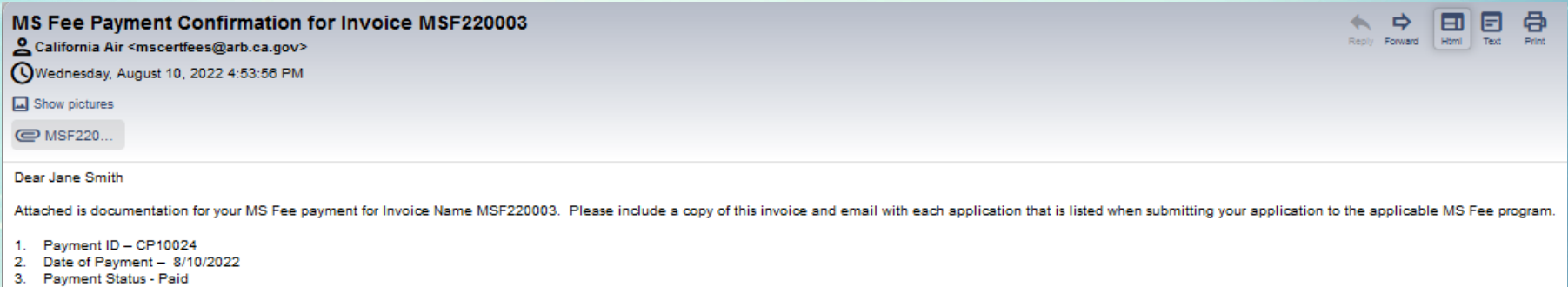
- No changes for MY 2024 to emission standards, test procedures, and certification procedures
 - For LSIE \leq 1L evap families, mfrs may continue using design-based certification and component EOs, and current certification application forms
 - Mfrs must verify evap component EOs are currently valid at the following link: <https://ww2.arb.ca.gov/our-work/programs/small-road-engines-sore/sore-evaporative-component-executive-orders>
 - Component mfrs can apply for new component SORE EOs for use on LSI \leq 1 L evap families and submit such applications to SORE@arb.ca.gov

Cert Fees for MY 2024+ Cert Applications

- Mfrs must pay cert fees for each new MY 2024+ 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 2024+ 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



The screenshot shows an email interface with the following content:

MS Fee Payment Confirmation for Invoice MSF220003

California Air <mcertfees@arb.ca.gov>

Wednesday, August 10, 2022 4:53:58 PM

Show pictures

MSF220...

Dear Jane Smith

Attached is documentation for your MS Fee payment for Invoice Name MSF220003. Please include a copy of this invoice and email with each application that is listed when submitting your application to the applicable MS Fee program.

1. Payment ID – CP10024
2. Date of Payment – 8/10/2022
3. Payment Status - Paid

- Mfrs must include the “Final Invoice” on the first page and the above payment confirmation email as the second 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>

EMA Requested SORE Topics

- Service Parts
 - Work with cert engineer for requests and questions
- Limited term EOs
- Engines preempted under [40 CFR 1074.10](#)
 - The SORE 2021 amendments do not affect status of preemption