

SMALL OFF-ROAD ENGINE (SORE) FUEL TANK CERTIFICATION GUIDELINES Last Updated 11/3/2020

This document is intended as a general outline for the process that a fuel tank manufacturer must pursue to certify its SORE fuel tanks. The information listed below is required, however more information may be requested during review. The Executive Officer determines whether an application is complete within 30 days of receipt. After the Executive Officer reviews and determines that an application is complete, the Executive Officer will approve or deny the fuel tank certification application within 90 days of the date that the Executive Officer deemed the application to be complete (California Code of Regulations, title 13, section 2767.1(c) and (d)).

- Authorization letter (if using a third-party consultant)
- Letter of intent (CP-901 Amended September 18, 2017, § 6.2 and CP-902 Amended September 18, 2017, § 5.2)
- Engineering drawing (CP-902 Amended September 18, 2017, § 6)
- Table of models and specifications (CP-901 Amended September 18, 2017, § 7)
- All emission-related test data
- Other attachments
- Worst-case untested sample (Cal. Code Regs., tit. 13, §§ 2754, 2755, 2757 (if applicable) and 2767.1)

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1. If using a third-party consultant, include a signed authorization letter from the company representative giving permission to discuss certification application and review process with consultant.
 2. Letter of intent must include:
 - Company name
 - Intended engine displacement category (≤ 80 cc or > 80 cc)
 - Explanation of why the tested worst-case fuel tank will exhibit the highest permeation rate relative to the applicable permeation emission standard compared to all other models in the family
 - Specific description of material composition
 - Specific description of barrier layer (material, thickness, chemical treatment, etc.)
 - General description of the manufacturing process (e.g., blow-molding, rotational molding, injection molding, stamping and seam welding) including
 - Any secondary operation for drilling holes for insertion of fuel line and grommet system
 3. Engineering drawing must include:
 - Cross section identifying all layers
 - All dimensional measurements including units and tolerances
 - Sample of label (Cal. Code Regs., tit. 13, § 2759(b, d))

4. Electronic table of all models intended to be certified in the family must include the following specifications for each model:
 - Model/part number
 - Internal surface area (not including the area of any openings, e.g., the filler neck opening)
 - Nominal capacity (the volume of fuel indicated by the manufacturer that represents the maximum recommended fill level as defined in Cal. Code Regs., tit. 13, § 2752(a)(17), in liters)
 - Total capacity (liters)
 - Number of holes/accessories in the fuel tank and purpose of each hole/accessory
 - Other specifications relating to how the worst-case will permeate the most in the family relative to the applicable permeation emission standard

5. All emission-related test data must include:
 - Reference to the test procedure used to generate the data including last amended date (Cal. Code Regs., tit. 13, § 2767.1(a-b))
 - TP-901 Amended May 6, 2019
 - Specific details and description of durability testing: pressure test, slosh test, ultraviolet radiation exposure, and fuel cap installation cycles (pressures, cycles, temperatures, angle deviations, exposure, length of testing) (TP-901 Amended May 6, 2019, § 8)
 - Specific description of preconditioning (start and end dates, time-stamped tabulated temperature, volume of fuel added and fuel refresh) (TP-901 Amended May 6, 2019, § 9)
 - Records of instrument calibration (TP-901 Amended May 6, 2019, § 7)
 - Time-stamped tabulated permeation test temperature data
 - Permeation test data from all production component samples (Cal. Code Regs., tit. 13, § 2767.1(a-b))
 - Picture of sealed, test fuel tanks
 - All problems encountered throughout the certification process (CP-901 Amended September 18, 2017, § 6.10)

6. Other attachments:
 - Fuel certificate of analysis (LEV III^a or IE10^b)
 - Installation and maintenance instructions
 - Limits for proper functioning
 - Warranty statements (Cal. Code Regs., tit. 13, § 2760)

7. Send untested worst-case production sample to:
California Air Resources Board
Attn: Testing and Certification Section
1927 13th Street
Sacramento, CA 95811

a) LEV III Certification Fuel as defined in part II, section A.100.3.1.2 of the California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light Duty Trucks, and Medium-Duty Vehicles, as last amended September 2, 2015.

b) IE10 is the gasoline defined in 40 CFR § 1060.520(e).