Frequently Asked Questions

for

Commercial Electric Vehicle Fueling Systems (EVFS) Manufacturers

1. Where can I find the definition of "commercial purposes?"

This information is found here:

Business and Professions Code (BPC), Division 5, Section 12500.

2. Where can I find the legal requirements for EVFS used for commercial purposes?

DMS posts links to weights and measures laws and regulations on its website at:
https://www.cdfa.ca.gov/dms/publications.html

California statutes regarding weighing and measuring devices used for commercial purposes, including EVFS used for commercial purposes, are found in the Business and Professions Code (BPC), Division 5, Sections 12001-13800.

California adopts the National Institute of Standards and Technology (NIST) Handbook 44 *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices* with California-specific exceptions and additions, applicable to EVFS, which are found here: California Code of Regulations (CCR) Title 4, Sections 4000, 4001, and 4002.11.

3. What entity is responsible for applying security seals on the device?

The entity placing the device into service is responsible for applying security seals. This is typically the Registered Service Agency (RSA).

4. Are email, text, or URL addresses allowed formats to view the event logger for EVFS with Category 3 sealing?

Yes. As of Jan. 1, 2022, **California Code of Regulations (CCR), Title 4, Sections 4000, 4001, and 4002.2, 2022 Edition of NIST Handbook 44, Section 3.40., EVFS, S.3.3. Provision for Sealing., Table S.3.3.** Categories of Device and Methods of

Sealing, Category 3, Method of Sealing, "The event logger information may be provided electronically in place of or in addition to a hard copy at the time of inspection, provided the event logger information is retained in the system for future reference."

5. Is multi-tiered pricing allowed?

Yes. Multi-tiered pricing is allowed and can be tested and certified if the device is capable of this feature. However, the device will be required to display all prices that may be applicable during a charging/fueling session before the customer activates the EVFS for a charging session.

6. Is payment (credit/debit) card activation capability required on EVFS for anonymous customers when these devices are used for commercial purposes?

Yes. Payment (credit/debit) card options and interoperability of EVFS used for commercial purposes are required by the California Air Resources Board (CARB) EVFS Equipment Standards Regulation available at: [CCR § 2360]

For questions directly related to CARB regulation please visit the CARB website or contact CARB staff directly.

7. What is a reasonable refresh rate for an EVFS primary indicator display during the charging session?

The refresh rate should be as frequent as possible (once every second or less is optimal). However, every five (5) seconds is the maximum allowed refresh rate for the primary EVFS indicator.

8. If the EVFS does not display the price and energy computing information continuously on one screen, can it cycle through multiple screens if all the information is provided?

Yes. The accumulated energy and parking session fee display may be cycled in intervals. As per S.1.2. EVFS Indicating Elements, each screen may continue to rotate for a minimum of 15 seconds total. For example, three (3) rotating screens are shown for five (5) seconds each, each screen must rotate at least three (3) times to reflect a minimum of 15 seconds total.

9. Does continuous indication mean both kWh and price?

Yes. Continuous indication means that both dispensed kWh and price are displayed as per Section 3.40. EVFS S.1.2. EVFS Indicating Elements**.**

This regulation is found here:
[4 CCR § 4000 (3.40.) S.1.2.]

10. Is the EVFS required to show an initial zero condition at the start of a transaction?

Yes. The EVFS is required to show an initial zero condition for price computing and energy consumption for a minimum of 15 seconds as per Section 3.40. EVFS S.2.1. EVFS Return to Zero**.**

This regulation is found here: S.2.1. EVFS Return to Zero.

11. How do I contact my local county office of weights and measures to register commercial EVFS?

If the EVFS manufacturer is also the operator of the device, then it is their responsibility to register it with the local county office of weights and measures. The link to the county offices of weights and measures is available at: http://www.cdfa.ca.gov/exec/county/countymap/

12. I am a Registered Service Agency (RSA) that installs, services, and repairs EVFS. Is there a Frequently Asked Question (FAQ) document that I may access to help answer my questions?

Yes. EVFS Registered Service Agency FAQs are located on the CDFA Division of Measurement Standards' webpage here: EVFS RSA FAQs

Recorded Representations:

13. Is the physical location of the EVFS required on the receipt?

Yes. The physical location identification is required to be on the receipt.

14. May an electronic receipt be by a displayed URL address that a person has to type in to get their receipt?

No. A complete receipt must be provided directly either in printed or electronic form. A provided link to a URL is not acceptable. Receipts shall be either paper or electronic and provided onsite or after the charging session.

15. Where can I find specific requirements for testing new commercial EVFS designs for Type Certification?

This information is found here:

https://www.cdfa.ca.gov/dms/programs/ctep/ctep.html

EVFS Identification

An EVFS is a complete system requiring a built-for-purpose hard ID badge that meets permanence requirements per code and the CTEP Checklist *CCR §§ 4000., 4001. and 4002.1. 2020 Edition of NIST HB 44 Section 1.10. G-S.1.Identification. General Code*

A hard ID Badge must be visible after the device is installed per the height requirement. G-UR.2.1.1. Visibility of Identification - *Equipment shall be installed in such a manner that all required markings are readily observable.*

16. Does the EVFS software version number need to be marked?

Yes, all EVFS manufactured as of January 1, 2022, must display the software version number on the hard ID badge or be displayed on the EVFS display screen.

This regulation can be found here: HB 44 G – S.1.Identification (d)

Note: This applies to all devices including EVFSs regardless of whether this was included on an NTEP CC or CTEP COA due to the requirements becoming retroactive as of Jan. 1, 2022.

G-A.5. Retroactive Requirements. *– "Retroactive" requirements are enforceable for all equipment. Retroactive requirements are printed herein in upright roman type.*

17. Can an App. or a display screen in the electric vehicle (EV) be used as a primary indicator?

No, the EVFS itself must have a primary indicator or a payment terminal (kiosk) can be the primary indicator.

18. Are back-office Point-of-Sale (POS) and payment management systems required to be type certified?

No. The device owner/operator is responsible for any back-office POS system it is working with, and the EVFS manufacturer is responsible for ensuring their system operates correctly with any integrated back-office system.

Testing Standards

19. What testing standards are traceable to the National Institute of Standards and Technology (NIST)?

The Division of Measurement Standards uses a NIST traceable field standard manufactured and certified by TESCO. However, other standards can be accepted by DMS by meeting the following requirement:

1. NIST traceability must be acceptable per ISO/IEC17025 by Tony Gruneisen, California Principal State Metrologist (anthony.gruneisen@cdfa.ca.gov).

2. The standard must interpret the pilot signal per **Section 3.40., N.5.2.** Documentation will need to be provided to the evaluator indicating that the standard can interpret the pilot signal correctly. This will also need to be included on the Certificate of Approval (COA) under test conditions.

    This regulation is found here: Section 3.40., N.5.2. Accuracy Testing

3. For safety concerns, the standard must be "plug-and-play." Wire connections must be safely in place with no exposed connections. This is a required operator safety issue. If the evaluator does not feel safe with using/touching the standard, then witness testing can be observed at a distance, or remotely online. For type certification, the NIST traceable standard used will be mentioned by the make and model number and a note will be added on the COA about the test conditions. The COA note will require the owner or operator to demonstrate the accuracy of testing with the local county official witnessing the initial verification of the installed commercial EVFS. See the code below for abnormal testing procedures.

    This regulation is found here: G-UR.4.4. Assistance in Testing Operations.

Other Weights and Measures Requirements

20. Where can I find the requirements for commercial device registration fees?

The Annual Device Registration Fees statutes are found here: BPC, Division 5, Sections 12240 and 12241.

Device Inspection Frequencies, Alternative Inspection Plans, and the Department's Administrative Fee Schedule (part of the Annual Device Registration Fee) are found here: CCR Title 4, Sections 4070-4075.

21. Can the EVFS provide free kWh energy without being type certified?

Yes, EVFS devices that do not charge any money or fees for dispensing electrical energy to fuel electric vehicles are not required to be type certified.

22. For non-type certified EVFSs, are parking charges allowed?

An EVFS that charges for parking based upon time must meet the timing device code.

This regulation can be found here: Section 5.55 in NIST HB 44

Any installed EVFS that provides electrical energy free of charge must clearly display this fact on the EVFS. Any such device would not be regulated as a commercial EVFS but may be subject to commercial device registration fees imposed by the local county office of weights and measures if the device imposes other charges such as for parking.

Once the EVFS has been type certified for parking, the application of parking fees for both during and after the charging session may be done.

Additional Information:
- DMS' CA EVFS Reference Document. This reference document allows the viewer to compare and contrast the CA regulation with the current edition of NIST Handbook 44, Section 3.40. Electric Vehicle Fueling Systems

- Links to the unedited current edition of NIST Handbook 44, Sections 1.10. General Code and 3.40. Electric Vehicle Fueling Systems.

- DMS' rulemaking activity is available at https://www.cdfa.ca.gov/dms/regulations.html
- Information regarding Registered Service Agency (RSA) requirements: https://www.cdfa.ca.gov/dms/programs/rsa/rsa.html

Quick Links:

DMS posts links to weights and measures laws and regulations on its website at: https://www.cdfa.ca.gov/dms/publications.html

County offices of weights and measures: http://www.cdfa.ca.gov/exec/county/countymap/

CARB's statute in Health and Safety Code (HSC) is:
HSC Sections 44268-44268.2
https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=26.&chapter=8.7.&part=5.&lawCode=HSC

CARB's EVFS regulation in the California Code of Regulations (CCR) in PDF format: https://ww2.arb.ca.gov/sites/default/files/2020-06/EVFS_fro_ac.pdf

California Code of Regulations (CCR) is located at 13 CCR 2360-2360.5: https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IDEBE121F1DD6483A98BD8E8F3759413B&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)