

Emergency Vehicle Technician 2

(NFPA Emergency Vehicle Technician II)

Certification Task Book (2020)



California Department of Forestry and Fire Protection
Office of the State Fire Marshal
State Fire Training

Overview

Authority

This certification task book includes the certification training standards set forth in the Emergency Vehicle Technician 2 Certification Training Standards Guide (2020) which is based on NFPA 1071: Standard for Emergency Vehicle Technician Professional Qualifications (2020).

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Published by: State Fire Training, 2251 Harvard Street, Suite 400, Sacramento, CA 95815

Cover photo courtesy of Lawrence Achen, Central Fire Protection District, Santa Cruz, CA.

Purpose

The State Fire Training certification task book is a performance-based document that identifies the minimum requirements necessary to perform the duties of that certification. Completion of a certification task book verifies that the candidate has the required experience, holds the required position if applicable, and has demonstrated the job performance requirements to obtain that certification.

Assumptions

State Fire Training holds the opinion that a Emergency Vehicle Technician 1, Emergency Vehicle Technician 2, or Emergency Vehicle Technician 3 certification candidate may initiate a task book and obtain verification signatures for job performance requirements (JPR) demonstrated during training. A fire chief retains the option to require a candidate to repeat any JPR completed and signed off on during training and to document that performance with a second signature in the candidate's task book.

For candidates who do not work for a California Fire Agency (i.e. non-fire public agency or private industry), the highest-ranking individual (i.e Fleet Manager) assumes the Fire Chief's responsibilities as listed within this certification task book.

Each job JPR shall be evaluated after the candidate initiates the task book.

An evaluator may verify satisfactory execution of a job performance requirement (JPR) through the following methods:

- First-hand observation
- Review of documentation that verifies prior satisfactory execution

State Fire Training task books do not count towards the NWCG task book limit. There is no limit to the number of State Fire Training task books a candidate may pursue at one time if the candidate meets the initiation requirements of each.

It is the candidate's responsibility to routinely check the State Fire Training website for updates to an initiated task book. Any State Fire Training issued update or addendum is required for task book completion.

A candidate must complete a task book within five years its initiation date. Otherwise, a candidate must initiate a new task books using the certification's current published version.

Roles and Responsibilities

Candidate

The candidate is the individual pursuing certification.

Initiation

The candidate shall:

1. Complete all **Initiation Requirements**.
 - Please print or type.

Completion

The candidate shall:

1. Complete all **Job Performance Requirements**.
 - Ensure that an evaluator initials, signs, and dates each task to verify completion.
2. Complete all **Completion Requirements**.
3. Sign and date the candidate verification statement under **Review and Approval** with a handwritten signature.
4. Obtain their fire chief's handwritten (not stamped) signature on the fire chief verification section.
5. Create and retain a physical or high-resolution digital copy of the completed task book

Submission

The candidate shall:

1. Submit a copy (physical or digital) of the completed task book and any supporting documentation to State Fire Training.
 - See Submission and Review below.

A candidate should not submit a task book until they have completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

Evaluator

An evaluator is any individual who verifies that the candidate can satisfactorily execute a job performance requirement (JPR).

An evaluator may verify satisfactory execution through the following methods:

- First-hand observation
- Review of documentation that verifies prior satisfactory execution

A qualified evaluator is designated by the candidate's fire chief and holds an equivalent or higher-level certification. If no such evaluator is present, the fire chief shall designate an individual with more experience than the candidate and a demonstrated ability to execute the job performance requirements. If the candidate is being evaluated in a public agency or private industry, the highest-ranking individual familiar with the candidate's experience should sign this task book.

A task book evaluator may be, but is not required to be, a registered skills evaluator who oversees a State Fire Training certification exam.

A certification task book may have more than one evaluator.

All evaluators shall:

1. Complete a block on the **Signature Verification** page with a handwritten signature.
2. Review and understand the candidate's certification task book requirements and responsibilities.
3. Verify the candidate's successful completion of one or more job performance requirements through observation or review.
 - Sign all appropriate lines in the certification task book with a handwritten signature or approved digital signature (e.g. Docusign or Adobe Sign) to record demonstrated performance of tasks.

Fire Chief

The fire chief is the individual who reviews and confirms the completion of a candidate's certification task book.

A fire chief may identify an authorized designee already on file with State Fire Training to fulfill any task book responsibilities assigned to the fire chief. (See *State Fire Training Procedures Manual*, 4.2.2: Authorized Signatories.)

If the candidate is being evaluated in a public agency or private industry, the highest-ranking individual familiar with the candidate's experience should sign this task book.

Completion

The fire chief shall:

1. Confirm that the candidate has obtained the appropriate signatures to verify successful completion of each job performance requirement.
2. Confirm that the candidate meets the **Completion Requirements**.
3. Sign and date the Fire Chief verification statement under **Review and Approval** with a handwritten signature.
 - If signing as an authorized designee, verify that your signature is on file with State Fire Training.

Submission and Review

A candidate should not submit a task book until he or she has completed all requirements and obtained all signatures. State Fire Training will reject and return an incomplete task book.

To submit a completed task book, please send the following to the address below:

- A copy of the completed task book (candidate may retain the original)
- All supporting documentation
- Payment

State Fire Training
Attn: Certification
2251 Harvard Street, Suite 400
Sacramento, CA 95815

State Fire Training reviews all submitted task books.

- If the task book is complete, State Fire Training will authorize the task book and retain a digital copy of the authorized task book in the candidate's State Fire Training file.
- If the task book is incomplete, State Fire Training will return the task book with a notification indicating what needs to be completed prior to resubmission.

Completion of this certification task book is one step in the certification process. Please refer to the *State Fire Training Procedures Manual* for the complete list of qualifications required for certification.

Initiation Requirements

The following requirements must be completed prior to initiating this task book.

Candidate Information

Name: _____

SFT ID Number: _____

Fire Agency: _____

Initiation Date: _____

Prerequisites

The candidate meets the following prerequisites.

- Code of Federal Regulations (CFR) 396.25 Department of Transportation Brake Inspector Qualification

| Training/Course | Granting Agency/Institution | Completion Date (listed on brake card) |
|---|-----------------------------|---|
| Code of Federal Regulations (CFR) 396.25 Department of Transportation Brake Inspector Qualification | | |

National Institute for Auto Service Excellence (ASE)

- Gasoline Engines [T1] (ASE)
- Diesel Engines [T2] (ASE)
- Drive Train [T3] (ASE)
- Brakes [T4] (ASE)
- Suspension and Steering [T5] (ASE)
- Electrical/Electronic Systems [T6] (ASE)
- Heating, Ventilation, and Air Conditioning (HVAC) [T7] (ASE)
- Preventative Maintenance Inspections [T8] (ASE)

EVT Certification Commission, Inc. Fire Apparatus Technician Level II Certification

- Note: This exam is administered by the California Fire Mechanics Academy (CFMA).

Education

The candidate has completed the following course(s).

State Fire Training

- Emergency Vehicle Technician 2A: Electrical Systems B (2020) (36 Hours) (SFT); or Fire Mechanic 2A: Fire Apparatus Electrical Systems (SFT)

Fire Chief Approval

State Fire Training confirms that a Fire Chief's approval is not required to initiate this task book.

Signature Verification

The following individuals have the authority to verify portions of this certification task book using the signature recorded below.

Please print except for the Signature line where a handwritten signature is required. Add additional signature pages as needed.

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

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Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Name: _____
Job Title: _____
Organization: _____
Signature: _____

Job Performance Requirements

The candidate must complete each job performance requirement (JPR) in accordance with the standards of the authority having jurisdiction (AHJ) or the National Fire Protection Association (NFPA), whichever is more restrictive.

All JPRs must be completed within a California fire agency, California Public Agency, California Private Industry or while attending the California Fire Mechanics Academy.

For JPRs that are not part of a candidate's regular work assignment or are a rare event, the evaluator may develop a scenario or interview that supports the required task and evaluate the candidate to the stated standard.

Each JPR shall be evaluated after the candidate initiates the task book.

Electrical and Electronic Systems

1. Perform repairs on low-voltage electrical system components, given an emergency response vehicle, manufacturer's specifications, an assignment or inspection report detailing a deficiency or deformation, SOPs, test and calibration equipment, and tools, so that defective components are diagnosed; deformed, broken, loose, worn, or missing parts of low-voltage electrical system components are repaired, replaced, or rebuilt to manufacturer's specifications; charging systems, starting systems, lighting systems, electrical accessories, and other electrical systems are returned to operation; correct test equipment is used; hazards are avoided; correct parts are used; diagnostic checks are conducted and performance is verified; and repairs are documented in accordance with the procedures of the manufacturer and the authority having jurisdiction. (NFPA 5.4.1) (CTS 8-1)

Evaluator Signature: _____ Date Verified: _____

2. Complete performance testing on low-voltage electrical system components including batteries, charging systems, starting systems, onboard chargers, electrical loads, solenoids, and relay devices in accordance with NFPA 1911, given an emergency response vehicle, manufacturer's specifications, SOPs, test and calibration equipment, and tools, so that components are performance tested to assure they are operating in accordance with manufacturer's specifications and NFPA standards; performance tests are conducted to verify that repairs are completed; and all testing is documented in accordance with the procedures of the manufacturer and the authority having jurisdiction. (NFPA 5.4.3) (CTS 8-2)

Evaluator Signature: _____ Date Verified: _____

3. Inspect the electronic controls and instrumentation, given an emergency response vehicle; SOPs; manufacturer specifications; tools; test, calibration, and diagnostic equipment; schematics; and an inspection checklist, so that the mounting security is verified; operation and condition of the electronic control system is verified to be within manufacturer specifications; all checklist items are inspected; defects and deficiencies, including broken, loose, worn, or missing parts, are identified and reported; and inspection and tests are documented in accordance with the procedures of the manufacturer and the authority having jurisdiction. (AHJ / OSFM) (CTS 8-3)

Evaluator Signature: _____ Date Verified: _____

4. Perform maintenance on the electronic controls and instrumentation, given an emergency response vehicle; manufacturer specifications; a maintenance schedule or assignment; a maintenance checklist; SOPs; test, calibration, and diagnostic equipment; and tools, so that deformed, broken, loose, worn, or missing parts are repaired or replaced; the operational condition is preserved or restored; calibration and adjustments are performed; activities are documented; and additional repair needs are reported. (OSFM) (CTS 8-4)

Evaluator Signature: _____ Date Verified: _____

5. Perform repairs on electronic controls and instrumentation, given an emergency response vehicle, manufacturer's specifications, an assignment or inspection report detailing a deficiency or deformation, SOPs, test and calibration equipment, and tools, so that defective components are diagnosed; deformed, broken, loose, worn, or missing parts of an electronic control or instrumentation are repaired, replaced, or rebuilt to manufacturer's specifications; engine, transmission, and brake electronic control units or electronic control modules, pump throttles and pressure control devices, and instrumentation are returned to operation; programming is correct; load control devices, sequencer, interfaces, and interlocks are operational; correct test equipment is used; correct parts are used; correct tests and programming procedures are followed; diagnostic checks are conducted and performance is verified; and repairs are documented in accordance with the procedures of the manufacturer and the authority having jurisdiction. (NFPA 5.4.2) (CTS 8-5)

Evaluator Signature: _____ Date Verified: _____

6. Complete performance testing on electronic controls and instrumentation including electronic engine, pump control systems, transmission, brake controls, load control devices, sequencers, interfaces, and interlocks, given an emergency response vehicle; manufacturer specifications; SOPs; test, calibration, and diagnostic equipment; and tools, in accordance with NFPA 1911 so that components are tested to assure they are operating in accordance with manufacturer specifications and NFPA standards; performance tests are conducted to verify that repairs are completed; and all testing is documented in accordance with the procedures of the manufacturer and the authority having jurisdiction. (AHJ / OSFM) (CTS 8-6)

Evaluator Signature: _____ Date Verified: _____

Completion Requirements

The following requirements must be completed prior to submitting this task book.

Experience

The candidate meets the following experience requirements.

- Have a minimum of three (3) years full-time, paid experience in a California fire department, public agency, or private industry as an automotive or truck mechanic, with one (1) year of which must be related to the maintenance of emergency response vehicles

OR

- Have a minimum of four (4) years full-time, paid experience in a California fire department, public agency, or private industry as a truck mechanic with no emergency response vehicles required

OR

- Have a minimum of five (5) years volunteer time or paid part-time, paid experience in a California fire department, public agency, or private industry as a truck mechanic with primary duties performing as a truck mechanic.

| Agency | Experience | Start Date | End Date |
|--------|------------|------------|----------|
| | | | |
| | | | |
| | | | |

Position

The candidate meets the qualifications for this level of certification. The position requirement is met when the applicant fulfills the role of the specific duties as defined by the Fire Chief.

Updates

The candidate has completed and enclosed all updates to this certification task book released by State Fire Training since its initial publication.

Number of enclosed updates: _____

Completion Timeframe

The candidate has completed all requirements documented in this certification task book within five years of its initiation date.

Initiation Date (see Fire Chief signature under **Initiation Requirements**): _____

Review and Approval

Candidate

Candidate (please print): _____

I, the undersigned, am the person applying for Emergency Vehicle Technician 2 certification. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein is true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documents may be cause for rejection or revocation.

Signature and Date: _____

Fire Chief

Candidate's Fire Chief (please print): _____

I, the undersigned, am the person authorized to verify the candidate's qualifications for Emergency Vehicle Technician 2 certification. I hereby certify under penalty of perjury under the laws of the State of California, that the completion of all requirements documented herein are true in every respect. I understand that misstatements, omissions of material facts, or falsification of information or documents may be cause for rejection.

Signature and Date: _____