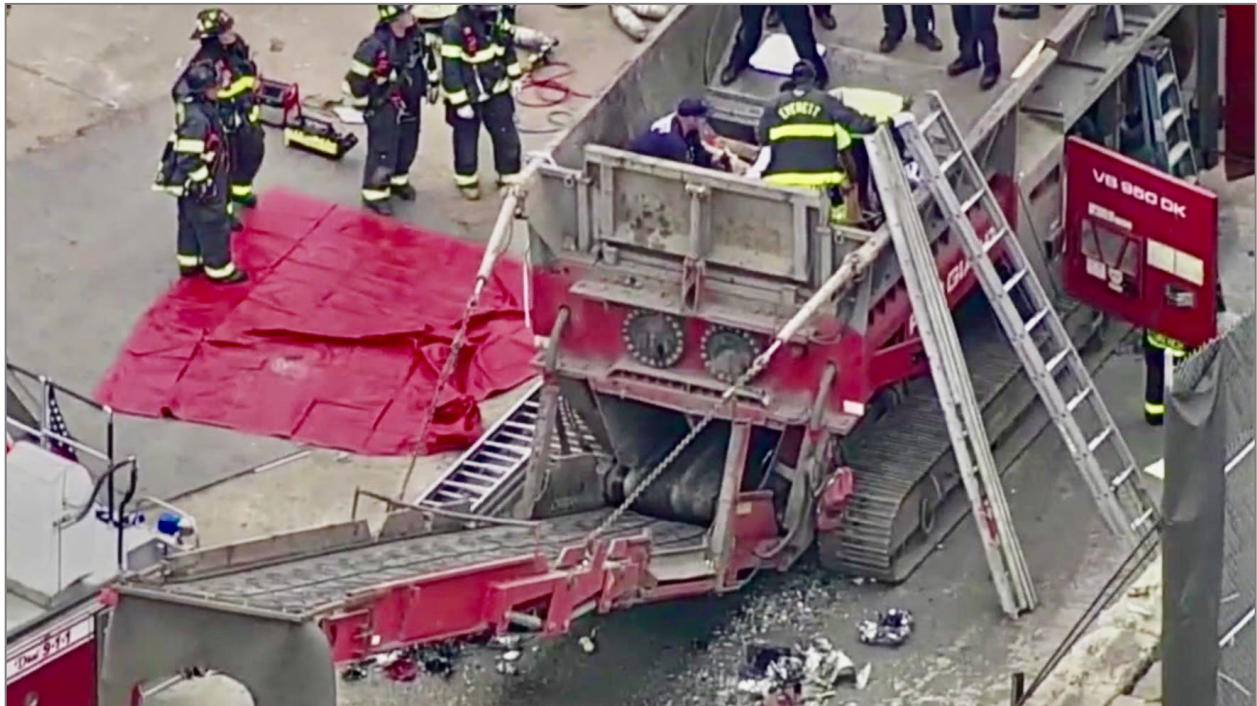


Machinery Rescue Technician

(NFPA 1006: Machinery Rescue
Awareness/Operations/Technician)

Instructor Task Book (2021)



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

Overview

Authority

This instructor task book includes the training standards set forth in:

- NFPA 1006: Standard for Technical Rescue Personnel Professional Qualifications (2021)

Published: May 2023

Published by: State Fire Training, PO Box 944246, Sacramento, CA 94244-2460

Cover photo courtesy of the Everett Fire Department, Everett, MA, and WHDH TV 7 News, Boston, MA.

Purpose

The State Fire Training instructor task book is a performance-based document. It lists the minimum requirements a candidate must meet in order to teach a specific State Fire Training course or course series.

Assumptions

With the exception of Fire Fighter and Emergency Vehicle Technician (EVT) certifications, a candidate may begin the task book initiation process upon completion of all required education components (courses).

Each job performance requirement (JPR) shall be evaluated after the candidate initiates the task book.

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 as long as the candidate meets the initiation requirements for each.

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

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

Roles and Responsibilities

Candidate

The candidate is the individual pursuing instructor registration.

Initiation

The candidate shall:

1. Complete the Initiation Requirements section.
 - Please print.
2. Complete a block on the Signature Verification page with a handwritten signature.

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 the Completion Requirements section.
3. Sign and date the Candidate verification section on the Review and Approval page with a handwritten signature.
4. Obtain their fire chief's handwritten (not stamped) signature on the Fire Chief verification section on the Review and Approval page.
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).

A qualified evaluator is a Registered Machinery Rescue Technician Instructor designated by the candidate's fire chief (or authorized designee). For instructor task books that do not require fire chief initiation, academy instructors serve as or designate evaluators.

An instructor 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 instructor task book requirements and responsibilities.
3. Verify the candidate's successful completion of one or more job performance requirements through observation.
 - Do not evaluate any job performance requirement (JPR) until after the candidate initiates the task book.
 - Sign all appropriate lines in the instructor task book with a handwritten signature or approved digital signature (e.g., DocuSign or Adobe Sign; a scanned copy of a signature is not acceptable) to record demonstrated performance of tasks.

Fire Chief

The fire chief is the individual who initiates (when applicable) and then reviews and confirms the completion of a candidate's instructor 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)

Initiation

The fire chief shall:

1. Review and understand the candidate's instructor task book requirements and responsibilities.
2. Complete a block on the Signature Verification page with a handwritten signature.
3. Designate qualified evaluators.

Completion

The fire chief shall:

1. Confirm that the candidate has obtained the appropriate signatures to verify successful completion of each job performance requirement.
 - Ensure that all job performance requirements were evaluated after the initiation date.
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 they have 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 items to the address below:

1. A copy of the completed task book (candidate may retain the original)
2. All supporting documentation
3. Payment

State Fire Training

Attn: Instructor Registration

PO Box 944246

Sacramento, CA 94244-2460

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 career 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 instructor task book is one step in the instructor registration process. Please refer to the *State Fire Training Procedures Manual* for the complete list of qualifications required to teach Machinery Rescue Technician (2021).

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.

1. OSFM Instructor 1, Training Instructor I, or Fire Instructor I certification; **or** OSFM Registered Instructor
2. OSFM Fire Fighter 1 certification

Include documentation to verify prerequisite requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

Education

That candidate has completed the following courses.

1. Machinery Rescue Technician (2021)

Include documentation to verify education requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

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 instructor 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: _____

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

Job Performance Requirements

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.

When California requirements exceed or require revision to the NFPA standard, the corresponding Office of the State Fire Marshal approved (OSFM) additions or revisions appear in italics.

All JPRs must be completed within a California fire agency or State Fire Training Accredited Regional Training Programs (ARTP).

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

Each task must be performed twice.

- The two instances must occur during two different courses.
- The same evaluator cannot sign off on the same task twice.
- In the tables, E1 represents the candidate's first evaluation and E2 represents their second evaluation.

Examples of correct and incorrect evaluation:

Correct: Task completed during two separate courses and evaluated by two separate individuals.

| 1. Assemble a comprehensive burn plan ("burn book") that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ). | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
|---|------------------|-----------|---------------|------------------|-----------|---------------|
| a. Describe purpose of a live fire burn plan | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | CWJ |
| b. Identify components of a live fire burn plan ("burn book") | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | CWJ |
| c. Identify records-retention requirements for burn plans | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | CWJ |

Incorrect: Task completed twice during one course but evaluated by two separate individuals.

| 1. Assemble a comprehensive burn plan (“burn book”) that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ). | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
|---|------------------|-----------|---------------|------------------|-----------|---------------|
| a. Describe purpose of a live fire burn plan | AAA123 | 2/8/18 | JAS | AAA123 | 2/8/18 | CWJ |
| b. Identify components of a live fire burn plan (“burn book”) | AAA123 | 2/8/18 | JAS | AAA123 | 2/8/18 | CWJ |
| c. Identify records-retention requirements for burn plans | AAA123 | 2/8/18 | JAS | AAA123 | 2/8/18 | CWJ |

Incorrect: Task completed during two separate courses but evaluated by the same individual.

| 1. Assemble a comprehensive burn plan (“burn book”) that contains all documentation necessary to conduct a live fire training evolution in accordance with NFPA standards and the policies and procedures of State Fire Training (SFT) and the authority having jurisdiction (AHJ). | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
|---|------------------|-----------|---------------|------------------|-----------|---------------|
| a. Describe purpose of a live fire burn plan | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | JAS |
| b. Identify components of a live fire burn plan (“burn book”) | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | JAS |
| c. Identify records-retention requirements for burn plans | AAA123 | 2/8/18 | JAS | BBB123 | 5/15/18 | JAS |

Machinery Rescue Technician Instructor

Course Administration and Application

| 1. Course administration and orientation | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
|--|------------------|-----------|---------------|------------------|-----------|---------------|
| a. Complete and submit course scheduling request | | | | | | |
| b. Order student textbooks (if applicable) | | | | | | |
| c. Identify facility requirements | | | | | | |
| d. Confirm facilities set up and safety | | | | | | |
| e. Identify classroom requirements | | | | | | |
| f. Confirm equipment (based on number of students) | | | | | | |
| g. Complete instructor assignments | | | | | | |
| h. Organize skill stations (location, equipment, timing, complexity) | | | | | | |
| i. Confirm prop set up and safety | | | | | | |
| j. Complete class rosters | | | | | | |
| k. Review course syllabus | | | | | | |

Course Content

| 2. Introduction to Machinery Rescue (Unit 2) | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
|--|------------------|-----------|---------------|------------------|-----------|---------------|
| | | | | | | |

| | | | | | | |
|--|-------------------------|------------------|----------------------|-------------------------|------------------|----------------------|
| a. Define a “machinery rescue” incident | | | | | | |
| b. Identify simple machinery common to the AHJ | | | | | | |
| c. Identify complex machinery common to the AHJ | | | | | | |
| d. Describe machine components and construction | | | | | | |
| e. Select and use PPE | | | | | | |
| f. Select and use tools and equipment | | | | | | |
| 3. Incident Response (Unit 3) | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
| a. Plan for a machinery rescue incident | | | | | | |
| b. Size up a machinery rescue incident | | | | | | |
| c. Utilize a subject matter expert | | | | | | |
| d. Recognize the need for technical rescue resources | | | | | | |
| e. Support an operations- or technician-level incident | | | | | | |
| f. Recognize and isolate incident hazards | | | | | | |
| g. Establish scene safety zones | | | | | | |
| h. Isolate energy sources | | | | | | |
| i. Establish fire protection | | | | | | |
| 4. Machinery Management (Unit 4) | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
| a. Stabilize a piece of machinery using wedges/chocks | | | | | | |
| b. Stabilize a piece of machinery using machinery systems (power source, breaks, etc.) | | | | | | |

| | | | | | | |
|--|-------------------------|------------------|----------------------|-------------------------|------------------|----------------------|
| c. Stabilize a piece of machinery using box (crosstie) cribbing | | | | | | |
| d. Stabilize a piece of machinery using solid (crosstie platform) cribbing | | | | | | |
| e. Stabilize a piece of machinery using modified crosstie cribbing | | | | | | |
| f. Stabilize a piece of machinery using struts | | | | | | |
| g. Stabilize a piece of machinery using cables, chains, ropes, slings | | | | | | |
| h. Control fuel release within a piece of machinery | | | | | | |
| i. Control mechanical release devices within a piece of machinery | | | | | | |
| j. Isolate energy equipment with a piece of machinery | | | | | | |
| k. Determine machinery access and egress points | | | | | | |
| l. Create access and egress by disassembling | | | | | | |
| m. Create access and egress by cutting | | | | | | |
| n. Create access and egress by burning | | | | | | |
| o. Create access and egress by lifting | | | | | | |
| p. Create access and egress by prying | | | | | | |
| q. Create access and egress by breaking | | | | | | |
| 5. Victim Rescue | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
| a. Stabilize a victim (to prepare for rescue) | | | | | | |
| b. Disentangle a victim by disassembling | | | | | | |
| c. Disentangle a victim by cutting | | | | | | |

| | | | | | | |
|-------------------------------------|-------------------------|------------------|----------------------|-------------------------|------------------|----------------------|
| d. Disentangle a victim by burning | | | | | | |
| e. Disentangle a victim by lifting | | | | | | |
| f. Disentangle a victim by prying | | | | | | |
| g. Disentangle a victim by breaking | | | | | | |
| h. Package a victim for removal | | | | | | |
| i. Remove a packaged victim | | | | | | |
| 6. Termination | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
| a. Terminate an incident | | | | | | |

Application

| | | | | | | |
|--|-------------------------|------------------|----------------------|-------------------------|------------------|----------------------|
| 7. Set up, demonstrate, and oversee skills stations and/or demonstrations | Course Code (E1) | Date (E1) | Initials (E1) | Course Code (E2) | Date (E2) | Initials (E2) |
| a. Tool lab (hands-on practice) <ul style="list-style-type: none"> • PPE unique to machinery rescue • Stabilization • Machine Management • Victim Rescue | | | | | | |
| b. Stabilize a whole machine | | | | | | |
| c. Stabilize interior parts or pieces of a machine | | | | | | |
| d. Disassembling a piece of machinery to create access/egress | | | | | | |
| e. Disassembling a piece of machinery to disentangle/extricate a victim | | | | | | |

| | | | | | | |
|--|--|--|--|--|--|--|
| f. Cutting a piece of machinery to create access/egress | | | | | | |
| g. Cutting a piece of machinery to disentangle/extricate a victim | | | | | | |
| h. Burning a piece of machinery to create access/egress | | | | | | |
| i. Burning a piece of machinery to disentangle/extricate a victim | | | | | | |
| j. Lifting a piece of machinery to create access/egress | | | | | | |
| k. Lifting a piece of machinery to disentangle/extricate a victim | | | | | | |
| l. Prying a piece of machinery to create access/egress | | | | | | |
| m. Prying a piece of machinery to disentangle/extricate a victim | | | | | | |
| n. Breaking piece of machinery to create access/egress | | | | | | |
| o. Breaking a piece of machinery to disentangle/extricate a victim | | | | | | |
| p. Stabilizing a victim | | | | | | |
| q. Disentangling a victim | | | | | | |
| r. Packaging a victim | | | | | | |
| s. Removing a victim | | | | | | |
| t. Rescue scenario: Digital entrapment | | | | | | |
| u. Rescue scenario: Simple entanglement (more than a digit) | | | | | | |
| v. Rescue scenario: Complex entanglement | | | | | | |
| w. Rescue scenario: Crush | | | | | | |
| x. Rescue scenario: Impalement | | | | | | |

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 years' full-time or six years' volunteer or part-time paid suppression/rescue experience in a recognized fire agency in California

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

Include documentation to verify prerequisite requirements when you submit your instructor task book unless verification is already documented in your SFT User Portal.

Position

State Fire Training confirms that there are no position requirements for instructor registration.

Updates

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

Number of enclosed updates: _____

Completion Timeframe

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

Initiation Date (see Initiation Date under Initiation Requirements): _____

Review and Approval

Candidate

Candidate (please print): _____

I, the undersigned, am the person applying to teach Machinery Rescue Technician. 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: _____ Date: _____

Fire Chief

Candidate's Fire Chief (please print): _____

I, the undersigned, am the person authorized to verify the candidate's qualifications to teach Machinery Rescue Technician. 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: _____ Date: _____