



**OFFICE OF THE STATE FIRE MARSHAL
STATEWIDE TRAINING AND EDUCATION ADVISORY COMMITTEE
DEPARTMENT OF FORESTRY AND FIRE PROTECTION**

PO Box 944246
Sacramento, CA 94244-2460
Phone: (916) 445-8200
Website: www.fire.ca.gov



Date: April 10, 2012

**To: Ronny J. Coleman, Chairman
c/o State Fire Training
1131 S. Street,
Sacramento, California 95811**

From: Mark Romer, Training Specialist State Fire Training

Subject/Agenda Action Item: Driver/Operator – Aerial/Tiller Truck Operations

Recommended Actions:

STEAC approve Driver/Operator – Aerial /Tiller Truck Operations as a FSTEP course.

Background Information:

See attached # 1, Document Driver/Operator 1C Proposal Position paper for background information.

Analysis/Summary of Issue:

As indicated in the background information, currently there is no existence of a Certification Training Standard (CTS) for Driver/Operator. This was identified at the Oct 21, 2011 STEAC meeting. At that same meeting STEAC was advised that State Fire Training is in the middle of a mission alignment process, part of this process is a realignment of all state certification tracks to their corresponding NFPA standard. The Task Force that is working on this assignment has reviewed all of the NFPA standards and has set a priority list of programs for consideration at a later date by STEAC. But until this list has been adopted there exists a need for Aerial Operations training within the State. Void of a CTS which will be used to identify the certification levels for this certification track, the placing of this course within the FSTEP series provides our customers with a State recognized training program thus meeting the needs. The new course outline for this program has been built in the new format which will allow this course to migrate over into CFSTES if it is identified in the new CTS (see attachment #2).

To summarize; a training need was recognized for a course on Aerial/Tiller Operations. The Los Angeles County Fire Department has made this a priority within their organization to develop a

CONSERVATION IS WISE-KEEP CALIFORNIA GREEN AND GOLDEN

PLEASE REMEMBER TO CONSERVE ENERGY. FOR TIPS AND INFORMATION, VISIT "FLEX YOUR POWER" AT WWW.CA.GOV.

training course to meet this need. This course can be customized like other FSTEP course to meet the needs of any organization. It has been developed in our new course outline format making it very easy to transition it into a certification track.

My Recommendation is that STEAC approve this course as a FSTEP program with the understanding that at a later time it might become part of the Driver/Operator certification track after the CTS has been developed.

Respectfully submitted

**Mark Romer
Fire Service Training Specialist
California State Fire Marshals Office
State Fire Training**

APPARATUS OPERATOR 1C

AERIAL TRUCK DRIVER/OPERATOR

EMERGENCY VEHICLE OPERATIONS



DRAFT

Course Outline

Course Objectives: To provide the student with...

- a) Information on driver responsibilities, recognized standards, and related laws for tiller and straight bodied aerial fire apparatus.
- b) Information and techniques on basic inspections, documentation, maintenance, and trouble shooting Aerial fire apparatus.
- c) Information and techniques on driving and positioning Aerial fire apparatus.
- d) The opportunity to increase their driving skills during simulated driving conditions.

Course Content 40:00

Unit 1: Introduction

1-1 Orientation and Administration1:00

Unit 2 : Legal Aspects of Emergency and Non emergency Driving

- 2-1 Fire Apparatus Driver/Operator Responsibilities.....0:10
- 2-2 California Vehicle Code0:30
- 2-3 County of Los Angeles Fire Department Policies and Procedures.....0:30
- 2-4 NFPA Standard 1002 – Fire Apparatus Driver / Operator Professional Qualifications .0:05
- 2-5 NFPA Standard 1451 – Fire Service Vehicle Operations Training Program.....0:05
- 2-6 NFPA Standard 1500 – Fire Department Occupational Safety and Health Program.....0:05
- 2-7 Evidence Code 669.....0:05
- 2-8 Title 49, CFR.....0:05
- 2-9 Liability Issues0:20
- 2-10 Driving Under the Influence (DUI) Laws0:10
- 2-11 Penalties.....0:10
- 2-12 Driver License Requirements.....0:15

Unit 3 : Defensive and Safe Driving of a Aerial Fire Apparatus

- 3-1 Fire Apparatus Driver/Operator Responsibilities.....0:10
- 3-2 Los Angeles County Fire Department Policies and Procedures0:15
- 3-3 NFPA Standard 1451 – Fire Service Vehicle Operations Training Program.....0:05
- 3-4 NFPA Standard 1500 – Fire Department Occupational Safety and Health Program....0:05
- 3-5 NFPA Standard 1915 – Fire Apparatus Preventative Maintenance Program.....0:05
- 3-6 Defensive Driver Qualities0:30
- 3-7 Driving Apparatus to Incidents0:20

COURSE OUTLINE

DRAFT

3-8	Principles of Braking and Stopping	0:15
3-9	Principles of Steering and Load Control	0:30
3-10	Driving During Adverse Weather Conditions.....	0:10
3-11	Principles of Emergency and Non-Emergency Driving.....	0:15

Unit 4 : Apparatus Log Book

4-1	Fire Apparatus Driver/Operator Responsibilities.....	0:10
4-2	Apparatus Log Forms.....	0:20
4-3	Apparatus Inventory Forms	0:10

Unit 5 : Aerial Apparatus Operations

5-1	Cab Operation	0:20
5-2	Turntable Operation.....	0:30
5-3	Out-rigger operation.....	0:20
5-4	On-board generator and electrical system	0:20
5-5	Tiller responsibilities	0:20

Unit 6 : Pre-trip Inspection Procedures

6-1	Pre-trip Policies.....	3:00
6-2	Pre-trip Exercises	4:00

Unit 7 : N.F.P.A. Recommendation Pamphlets 1901,1911

7-1	1901.....	1:00
7-2	1911	1:00

Unit 8 : Inspection, Basic Maintenance, Documentation, and Troubleshooting

8-1	Fire Apparatus Driver/Operator Responsibilities.....	0:10
8-2	Basic Inspection, Maintenance, and Troubleshooting.....	0:30
8-3	Drive Line, Transmissions, and Differentials	0:10
8-4	Brake Systems.....	0:40
8-5	Steering Systems	0:20
8-6	Trailer Systems and Components	0:30
8-7	Ladder Systems	0:30
8-8	Out of Service Criteria.....	0:10
8-9	Lubrication Procedures	0:15
8-10	Repair Procedures	0:15
8-11	Lubrications	Handout Only

Unit 9 : Ladder Operations

- 9-1 Elevating the ladder (Outriggers, Raise, Rotate, Extend, Lower, Retract, Bed)0:30
- 9-2 Ladder Hydraulic Override Procedures0:20
- 9-3 Practical Application4:00

Unit 10 : Apparatus Placement

- 10-1 General Apparatus Placement0:10
- 10-2 Apparatus Placement at Rescues.....0:10
- 10-3 Apparatus Placement at Freeway Incidents0:10
- 10-4 Apparatus Placement at Hazardous Materials / Terrorism Incidents0:10
- 10-5 Apparatus Placement at Structure Fires0:20
- 10-6 Apparatus Placement Near Railroad Incidents0:10
- 10-7 Apparatus Security0:10

Unit 11: Emergency Operations

- 11-1 Hydraulic system over-view0:30
- 11-2 Electrical system0:30
- 11-3 Over-rides0:30

Unit 12: Fire Shop Support

- Fire Shop Annual U.L. Ladder Test Demonstration2:00
- Symposium : Lessons Learned from the Field & The Shop led by
Senior Mechanic Jack Kou and Assistant Fire Chief Chris Marangakis1:00

Unit 13: Tiller Position Instruction

- 13-1 Classroom Presentation 1:00
- 13-2 Psychomotor Lessons..... 2:00

Unit 14 : Skills Driving Event

- 14-1 Introduction to County of Los Angeles Fire Department Driving Skills (Tiller Truck Rodeo).....0:30

Unit 15 : Optional Driving Exercises

- 15-1 National Association of Professional Drivers (N.A.P.D.) Driving Exercises.....1:00
- 15-2 Practice and Testing the Driving Exercises (Engineer & Tiller Operator Positions). 10:00

COURSE OUTLINE

DRAFT

Unit 16: Testing

Certification Exam3:00

Supplemental / Optional Student Task Book40.00

Texts and References

Apparatus Operator 1A Program, California State Fire Marshalls Office, State Curriculum

Apparatus Operator 1B Program, California State Fire Marshalls Office, State Curriculum

California Commercial Driver Handbook, DMV, 2007 Edition

Driver Awareness Instructor Course Manual, California Commission on Peace Officer
Standards and Training, 1999 Edition

<http://www.bendix.com/troubleshooting/>

Motor Truck & Diesel Repair Manual, Bendix Commercial Vehicle Systems 29th Edition

NFPA 1001: Standard for Fire Fighter Professional Qualifications NFPA, 1997 Edition

NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications NFPA,
1998 Edition

NFPA 1451: Standard for a Fire Service Vehicle Operations Training Program, NFPA,
2002 Edition

NFPA 1500: Standard on Fire Department Occupational Safety and Health Program, NFPA,
2002 Edition

NFPA 1582: Standard on Medical Requirements for Fire Fighters NFPA, 2000 Edition

NFPA 1915: Standard for Fire Apparatus Preventive Maintenance Program NFPA, 2000 Edition

State of California 2007 Vehicle Code DMV, 2007 Edition

Title 49 CFR Transportation U.S. Government Printing Office, October 2001 Edition

Webster's Unabridged Dictionary, Random House, Second Edition

Manual D (Driving), Volume 8, County of Los Angeles Fire Department

Truck Company Operations Training Guide, (Subjects 1 & 3), County of Los Angeles Fire
Department

Manufacturers Specifications, County of Los Angeles Fire Department Vehicle Accident
Prevention Program. 2008