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
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

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

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 Administration ............................................. 1:00

Unit 2 : Legal Aspects of Emergency and Non emergency Driving
2-1 Fire Apparatus Driver/Operator Responsibilities............................ 0:10
2-2 California Vehicle Code .................................................................. 0:30
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 Issues .................................................................. 0:20
2-10 Driving Under the Influence (DUI) Laws ...................................... 0:10
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 Procedures ........... 0:15
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 Qualities .......................................................... 0:30
3-7 Driving Apparatus to Incidents ...................................................... 0:20
### COURSE OUTLINE

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

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June 2009  
Course Outline
COURSE OUTLINE

Unit 9: Ladder Operations
9-1 Elevating the ladder (Outriggers, Raise, Rotate, Extend, Lower, Retract, Bed) ........... 0:30
9-2 Ladder Hydraulic Override Procedures ................................................................. 0:20
9-3 Practical Application .............................................................................................. 4:00

Unit 10: Apparatus Placement
10-1 General Apparatus Placement ............................................................................ 0:10
10-2 Apparatus Placement at Rescues ....................................................................... 0:10
10-3 Apparatus Placement at Freeway Incidents ....................................................... 0:10
10-4 Apparatus Placement at Hazardous Materials / Terrorism Incidents ........... 0:10
10-5 Apparatus Placement at Structure Fires ............................................................ 0:20
10-6 Apparatus Placement Near Railroad Incidents ................................................ 0:10
10-7 Apparatus Security ............................................................................................ 0:10

Unit 11: Emergency Operations
11-1 Hydraulic system over-view ............................................................................... 0:30
11-2 Electrical system .................................................................................................. 0:30
11-3 Over-rides ............................................................................................................ 0:30

Unit 12: Fire Shop Support
Fire Shop Annual U.L. Ladder Test Demonstration .................................................. 2:00
Symposium: Lessons Learned from the Field & The Shop led by
Senior Mechanic Jack Kou and Assistant Fire Chief Chris Marangakis .......... 1:00

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

June 2009

Course Outline
Unit 16: Testing
Certification Exam ............................................................................................................. 3:00

Supplemental / Optional Student Task Book .................................................................... 40.00

Texts and References
Apparatus Operator 1A Program, California State Fire Marshalls Office, State Curriculum
Apparatus Operator 13 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/
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
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