



# **THE FUTURE OF FIRE APPARATUS AND EMERGENCY EQUIPMENT**

**RYAN DEPEW – NFPA**

**FDIC 2014**





# OVERVIEW

- **WHERE ARE WE NOW**
- **NFPA 1901 TENTATIVE NEW MATERIAL**
- **NFPA 1906 TENTATIVE NEW MATERIAL**
- **WHAT'S NEXT**



# WHERE ARE WE NOW?

- **APPROXIMATELY HALF WAY THROUGH ANNUAL 2015 REVISION CYCLE**
- **JUST COMPLETED THE INPUT STAGE FOR 2016 EDITION OF NFPA 1901 AND NFPA 1906**
- **ALL REVISIONS TENTATIVE AT THIS POINT IN TIME**
- **OPEN ONLINE FOR PUBLIC COMMENT UNTIL **5/16/2014****
- **NO NEW MATERIAL GOING FORWARD**
- **ALL PERTINENT MATERIALS AVAILABLE AT [WWW.NFPA.ORG/1901NEXT](http://WWW.NFPA.ORG/1901NEXT) AND [WWW.NFPA.ORG/1906NEXT](http://WWW.NFPA.ORG/1906NEXT)**



# **NFPA 1901 STANDARD FOR AUTOMOTIVE FIRE APPARATUS**

- **COMMITTEE RECEIVED APPROXIMATELY 400 PUBLIC INPUTS**
- **15 WEB CONFERENCE TASK GROUP MTGS, 42+ HOURS, 200+ PARTICIPANTS**
- **COMMITTEE DEVELOPED APPROXIMATELY 250 FIRST REVISIONS**
- **FIRST DRAFT REPORT AVAILABLE AT [WWW.NFPA.ORG/1901NEXT](http://WWW.NFPA.ORG/1901NEXT)**
  - **SHOWS CHANGES IN LEGISLATIVE TEXT**
  - **ASSISTS WITH ONLINE SUBMISSION OF PUBLIC COMMENTS**



# **NFPA 1906 STANDARD FOR WILDLAND FIRE APPARATUS**

- **COMMITTEE RECEIVED APPROXIMATELY 200 PUBLIC INPUTS**
- **COMMITTEE DEVELOPED APPROXIMATELY 160 FIRST REVISIONS**
- **FIRST DRAFT REPORT AVAILABLE AT [WWW.NFPA.ORG/1906NEXT](http://WWW.NFPA.ORG/1906NEXT)**
  - **SHOWS CHANGES IN LEGISLATIVE TEXT**
  - **ASSISTS WITH ONLINE SUBMISSION OF PUBLIC COMMENTS**



# **NFPA 1901**

## **NEW MATERIAL FOR COMMENT**

- **TENTATIVE CHANGES FOR 2016 EDITION OF NFPA 1901:**
  - **REORGANIZATION OF APPARATUS TYPE CHAPTERS (CH.5-11)**
  - **REDUCTION OF EQUIPMENT REQUIREMENTS FOR MOBILE WATER SUPPLY FIRE APPARATUS**
  - **MANUFACTURER'S PREDELIVERY TEST**
  - **NEW CHAPTER ULTRA-HIGH PRESSURE FIRE PUMPS AND ASSOCIATED EQUIPMENT**
  - **FAMA TC010 - STANDARD PRODUCT SAFETY SIGN CATALOG FOR AUTOMOTIVE FIRE APPARATUS**



# CHAPTER 7 MOBILE WATER SUPPLY FIRE APPARATUS

- **REDUCTION OF EQUIPMENT REQUIREMENTS FOR MOBILE WATER SUPPLY FIRE APPARATUS**
- **EQUIPMENT STORAGE**
  - A MINIMUM OF ~~20~~ **10** FT<sup>3</sup> OF ENCLOSED WEATHER-RESISTANT COMPARTMENTATION
- **FIRE HOSE AND NOZZLES**
  - ~~400~~ **100** FT OF 1-1/2 IN., 1-3/4 IN., OR 2 IN. FIRE HOSE
  - ~~TWO~~ **ONE** HANDLINE NOZZLES, 95 GPM MINIMUM
- **GROUND LADDERS**
  - **NOT REQUIRED UNLESS SPECIFIED BY THE PURCHASER**



# CHAPTER 7 MOBILE WATER SUPPLY FIRE APPARATUS

- **MISCELLANEOUS EQUIPMENT NO LONGER REQUIRED**
  - **ONE 6 LB FLATHEAD OR PICKHEAD AXE**
  - **ONE 6 FT OR LONGER PIKE POLE OR PLASTER HOOK**
  - **ONE 2-1/2 GAL OR LARGER WATER EXTINGUISHER**
  - **ONE SCBA COMPLYING WITH NFPA 1981 FOR EACH ASSIGNED SEATING POSITION, BUT NOT FEWER THAN TWO, MOUNTED IN BRACKETS FASTENED TO THE APPARATUS OR STORED IN CONTAINERS SUPPLIED BY THE SCBA MANUFACTURER**
  - **ONE SPARE SCBA CYLINDER FOR EACH SCBA CARRIED, EACH MOUNTED IN A BRACKET FASTENED TO THE APPARATUS OR STORED IN A SPECIALLY DESIGNED STORAGE SPACE(S)**





# CHAPTER 16 FIRE PUMPS AND ASSOCIATED EQUIPMENT

- **16.13.10 MANUFACTURER'S PREDELIVERY TEST.**
- **16.13.10.1 THE MANUFACTURER SHALL CONDUCT A PIPING HYDROSTATIC TEST PRIOR TO DELIVERY OF THE APPARATUS.**
- **16.13.10.2 THE TEST SHALL BE CONDUCTED AS FOLLOWS:**
  - **THE PUMP AND ITS CONNECTED PIPING SYSTEM SHALL BE HYDROSTATICALLY TESTED TO A GAUGE PRESSURE OF 250 500 PSI**









# CHAPTER 28 ULTRA-HIGH PRESSURE FIRE PUMPS AND ASSOCIATED EQUIPMENT

- **NEW CHAPTER ON ULTRA-HIGH PRESSURE FIRE PUMPS ALSO IN NFPA 1906**
- **APPLIES TO UHP PUMPS WITH:**
  - **MINIMUM RATED CAPACITY OF 6 GPM**
  - **DISCHARGE PRESSURE GREATER THAN OR EQUAL TO 1100 PSI**
- **PUMP PERFORMANCE, POWER TRAIN CAPABILITY, CONSTRUCTION, INTAKES/ DISCHARGES, OPERATOR'S PANEL, CONTROLS, PUMP DRIVE SYSTEMS, ENGINE CONTROLS, GAUGES/INSTRUMENTS, REQUIRED TESTING**



# SAFETY SYMBOLS

- **FAMA TC010 - STANDARD PRODUCT SAFETY SIGN CATALOG FOR AUTOMOTIVE FIRE APPARATUS**
- **INCORPORATED THROUGHOUT: SUBSTANTIALLY SIMILAR**
- **ALSO ADDED TO NFPA 1906**

Ref Number	Hazard	Location	Size (in.)	Font Size	ANSI Version	ISO Version
FAMA30	Stabilizer Crush	Visible to person standing near each stabilizer Visible to stabilizer deployment operator.	3.5 x 3.5	12		
FAMA31	Stabilizer Pins & Pads	Visible to stabilizer deployment operator.	3.0 x 5.0	14		
FAMA32	Stabilizer Pads	Visible to stabilizer deployment operator.	3.0 x 5.0	14		



# **NFPA 1906: NEW MATERIAL FOR COMMENT**

- **TENTATIVE CHANGES FOR 2016 EDITION OF NFPA 1906:**
  - **NEW CHAPTER WILDLAND FIRE CREW CARRIER APPARATUS**
  - **ON-BOARD PUMP-AND-ROLL FIRE FIGHTING POSITION**
  - **NEW CHAPTER ULTRA-HIGH PRESSURE FIRE PUMPS AND ASSOCIATED EQUIPMENT (IDENTICAL TO NFPA 1901)**
  - **FAMA TC010 - STANDARD PRODUCT SAFETY SIGN CATALOG FOR AUTOMOTIVE FIRE APPARATUS**



# **CHAPTER 10 WILDLAND FIRE CREW CARRIER APPARATUS**

- **NEW CHAPTER ON WILDLAND FIRE CREW CARRIER APPARATUS**
  - **HEAVILY EXTRACTED FROM NFPA 1917, STANDARD FOR AUTOMOTIVE AMBULANCES**
  - **CREW COMPARTMENT – BODY MOUNTING**
  - **CREW COMPARTMENT BODY STRUCTURAL INTEGRITY**
    - **ROOF LOADING – STRUCTURAL INTEGRITY AND TEST METHOD**
    - **SIDE LOADING – STRUCTURAL INTEGRITY AND TEST METHOD**



# CHAPTER 10 WILDLAND FIRE CREW CARRIER APPARATUS

- **CREW COMPARTMENT ENTRY DOORS**
- **CREW COMPARTMENT BODY MEANS OF ESCAPE**
  - **TWO ADDITIONAL MEANS OF ESCAPE**
- **CREW COMPARTMENT SEATS**
- **SEAT INTEGRITY - NO SCBA IN SEAT BACKS**
- **OCCUPANT HEAD CLEARANCE ZONE TEST**
- **HVAC**



# ON-BOARD PUMP-AND-ROLL FIRE FIGHTING POSITION

- **CHAPTER 14 DRIVING AND CREW AREAS – SECTION 14.4 ON-BOARD PUMP-AND-ROLL FIRE FIGHTING POSITION**
  - **CONTROVERSIAL SUBJECT AT COMMITTEE LEVEL**
  - **EXTERIOR ATTACK POSITION – FAST MOVING FINE FUEL FIRES**
  - **INCORPORATED WITH A DESIRE TO GENERATE FEEDBACK FROM INDUSTRY**
- **ON-BOARD PUMP-AND-ROLL FIRE FIGHTING POSITION REQUIRES:**
  - **TYPE 1 SEAT BELT**
  - **CONTROLS ACCESSIBLE WITHOUT REMOVAL OF SEAT BELT**
  - **COMMUNICATION WITH DRIVER**



# **ON-BOARD PUMP-AND-ROLL FIRE FIGHTING POSITION**

- **SEATING POSITION OUTSIDE THE CAB:**
  - **LOCATED BEHIND THE CAB**
  - **SEAT BELT WARNING SYSTEM**
  - **PROTECTED BY STRUCTURE IN ACCORDANCE WITH :**
    - **SAE J1194, ROLLOVER PROTECTIVE STRUCTURES (ROPS) FOR WHEELED AGRICULTURAL TRACTORS**
  - **DESIGNED WITH EXIT OUT BOTH SIDES**
  - **SOLID GUARD PROTECTION FROM BRUSH HAZARDS AT FRONT, BACK, AND ROOF**





# NEXT STEPS

- **PUBLIC COMMENT CLOSING DATE FOR ONLINE SUBMISSIONS – 5/16/2014**
- **ONLINE SUBMISSION SYSTEM ACCESS AND RELEVANT MATERIALS AVAILABLE AT: [WWW.NFPA.ORG/1901NEXT](http://WWW.NFPA.ORG/1901NEXT) AND [WWW.NFPA.ORG/1906NEXT](http://WWW.NFPA.ORG/1906NEXT)**
- **SECOND DRAFT MEETING DATE AND LOCATION TBD – BETWEEN JUNE 2014 AND OCTOBER 2014**
- **MEETING NOTICE AND AGENDA - [WWW.NFPA.ORG/1901NEXT](http://WWW.NFPA.ORG/1901NEXT) AND [WWW.NFPA.ORG/1906NEXT](http://WWW.NFPA.ORG/1906NEXT)**



# NEXT STEPS

## TASK GROUPS – REPORT TO COMMITTEE ON SPECIFIC ISSUES:

**ADMINISTRATION**

**AERIAL**

**AIR SYSTEMS**

**AUXILIARY EQUIPMENT**

**BODY**

**CHASSIS & TRAILERS**

**COMMAND/ COMMUNICATIONS**

**ELECTRICAL, LOW VOLTAGE & LINE**

**FOAM**

**FUNCTION**

**PUMP**

**WILDLAND**

# QUESTIONS?



**RYAN DEPEW**

**[RDEPEW@NFPA.ORG](mailto:RDEPEW@NFPA.ORG)**

**617-984-7485**