



**MINUTES
FIRE APPARATUS MANUFACTURERS' ASSOCIATION
TECHNICAL COMMITTEE MEETING
APRIL 27, 2017
INDIANAPOLIS CONVENTION CENTER, INDIANAPOLIS, IN**

Call to Order – by Roger Lackore at 7:32 a.m.

Proof of Notice – Notice of this meeting was provided to all Technical Committee representatives and FAMA members on March 8, 2017 via email.

Roll Call – A quorum was declared with 61 member companies present at the start of the meeting. [See attendance and sign-in sheets attached to these minutes.]

Wes Chestnut welcomed the new attendees.

Antitrust Guidelines and Non-Discrimination Policy – Legal Counsel Jim Juneau stressed that it is FAMA's policy to abide by the antitrust laws of the United States and the strict non-discrimination policy at all meetings of the Association.

Recognition and appreciation was provided to meeting sponsors: Spartan Emergency Response, W.S. Darley & Company, Whelen Engineering Company, and corporate sponsor PennWell Fire Group

Review/Enter Minutes – After discussion and upon motion duly made and seconded, it was:

VOTED: That the minutes of the August 18, 2016 Technical Committee Meeting (San Antonio, TX) are approved and be entered into the records of the association.

Welcome /Association Update – President Scott Edens welcomed all member company representatives in attendance and extended his appreciation for their time and service to the association and Technical Committee. Mr. Edens recognized and congratulated Roger Lackore and Wes Chestnut (Technical Committee Chairs) for the two prestigious awards they received at the Spring Meeting for their great work and commitment to the advancement of FAMA and the committee.

A brief review of the plans for the FDIC International/FAMA Showcase event was provided. With the goal to fill the room, attendees were encouraged to assist by bringing fire service personnel to the event.

Chris Mc Loone, Senior Editor of *Fire Apparatus & Emergency Equipment*, provided a brief welcome to FDIC 2017.

Chairman's Award – Mr. Chris Crowel (recipient of the 2016 Chairman's Award), Roger Lackore, Wes Chestnut and Scott Edens presented the 2017 Technical Committee Chairman's Award to Sam Massa for his outstanding dedication and steadfast service to the committee.

Roger Lackore reviewed the Subcommittee Leaders and the agenda for the meeting with the focus on the FAMA Buyers Guide. The Committee has a goal to complete and finalize the Buyers Guide before the end of the year.

A review of the proposed presenters and presentation topics for the FDSOA event in Scottsdale, AZ in January 2018 was provided. The schedule of speakers is currently being developed.

An updated FAMA Forum article schedule thru June 2018 was provided and reviewed.

Request was made for a person to champion the Committee's initiative to develop a Hose Bed Capacity Calculator and provided a project status report. A test standard needs to be created to determine the hose capacity of a hose bed. The Committee has asked for assistance from FEMSA members for the data needed.

FAMA provided two NHTSA Compliance Training Programs yesterday, Wednesday, April 26, 2017, both sessions were well attended and successful. The training provided was in-depth and highly informational on NHTSA Recalls and Early Warning Reporting (EWR) Compliance.

The committee is planning to provide EPA Compliance Training at Firehouse Expo in October 2018 with specific focus on tires, air conditioning and labeling.

The following committee white papers are pending:

- Power Line Contact Position
- Hose Testing
- Apparatus Size and Weight (update)

The following New Safety Signs were proposed and approved:

- FAMA48 – Designated Standing and Walking Surfaces
- FAMA49 – Ladder Restraint
- FAMA50 – Equipment Racks

The Safety Sign white paper will be updated to include the above new Safety Signs.

The goal of the NFPA project Risk Management Interventions to Reduce Vehicle-Related Incidents and Fatalities was reviewed. Wes Chestnut will represent FAMA at the June 2017 meetings.

The location of the Fall Technical Committee Meeting has changed and will be held at Firehouse Expo in Nashville on Wednesday, October 18th.

Subcommittee members were provided a brief review of how Basecamp works and were encouraged to use the tool to work together in teams for progression and the successful completion of projects.

The goal of the FAMA Buyers Guide is to aid fire departments when they are specifying new apparatus. Roger reviewed the specific development plans of guides tasked to the subcommittees. Review of the full plan for the FAMA Buyers Guide was provided.

Currently, the following five Buyers Guides are completed and posted on the FAMA website:

TC031	Aerial Apparatus	TC024	Pumps
TC033	Aux Engine Braking Systems	TC005	FAMA Apparatus Improvement White Paper 2016
TC030	Foam Systems		

The Body Subcommittee has the following ten (10) Buyers Guides to produce:

TC039	Tanks	TC054	Compartment Doors
TC041	Hose Restraints	TC055	Reels
TC042	Stepping Surfaces	TC056	Ladder
TC043	Chevron Stripping and Graphics	TC058	Equipment Mounting – Body
TC053	Breathing Air Systems	TC059	Body Access

The Chassis Subcommittee has the following eleven (11) Buyers Guides to produce:

TC034	Winches	TC051	Cab Storage
TC036	Apparatus Seating	TC057	Occupant Protection
TC046	Engine Air Intake	TC062	Tires
TC047	Specifying Apparatus for Maintenance	TC063	Wheels
TC048	Suspensions - Front	TC064	HVAC
TC049	Suspensions - Rear		

Roger announced the NFPA 1901 will need to address the NIOSH report. By being pro-active, FAMA is building a relationship and working towards a mutually acceptable result with Mr. Gordon Routley. The proposal to NFPA 1901 should maintain traditional cab seating space requirements, but may require losing the seating option of four-across the rear of the cab.

The Electrical Subcommittee has the following eight (8) Buyers Guides to produce:

TC035	Batteries, Alternators, and Chargers	TC045	Electrical Systems
TC037	Lighting Technology	TC050	Audible Warning Devices
TC038	Line Voltage Generators	TC060	Light Towers
TC040	Headlights	TC061	Camera Systems
TC044	Warning Lights		

The Foam Subcommittee has the following Buyers Guide to produce:

TC030 Foam Systems

The Pump Subcommittee has the following Buyers Guide to produce:

TC052 Pump Pressure Governors

The Aerial Subcommittee was asked to:

- Brainstorm new Buyers Guides topics and assign authors.
- Review the NFPA sections on Aerial Structural Design and Safety Factors. Consider ways to improve NFPA 1901 to more accurately and consistently define aerial design requirements.
- Review NFPA Aerial Stability Test verbiage and consider ways to correct inconsistency in the language.
- Discuss the approach and assign an author of the Power Line Proximity Position Paper.

The Ambulance Subcommittee was asked to:

- Brainstorm new Buyers Guides topics and assign authors.

The ARFF Subcommittee was asked to:

- Brainstorm new Buyers Guides topics and assign authors.

New Business – none

Old Business – none

Attendees were released to subcommittee breakouts after the meeting adjourned.

Next Meeting Notice – The next meeting of the Technical Committee will be held Wednesday, October 18, 2017 at 3:00 p.m. CDT at the Music City Center in Nashville, TN. Specific room to be announced.

Adjournment – With no further business to come before this meeting, upon motion duly made and seconded and no further discussion, it was

VOTED: To adjourn at 9:48 a.m.

A true copy, attest:

Sonya Kelly

Attachments:

Member Company Attendance

Sign-In Sheets

Subcommittee Meeting Notes Follow

A. Aerial/Quint –

Discussion on the following topics, and actionable items & responsible parties:

- We discussed the NFPA 1901 standard regarding the clarity of the current standard in the areas of live loadings, wind loads, dynamics loads, and ice loading.
 - In lieu of specific requirements, manufacturers have chosen to specify the wind speeds and ice loading for their aerial devices.
 - There is not a consistent method for this technical evaluation and the parameters to be used.
 - Discussion was held on the need for these considerations in the standard and where fire department policy and discretion enter in to the process.
 - Higher reach ladders with envelope control systems are impacted more significantly by wind and dynamic loadings and may require more refinement of the standards.
 - Roger Lackore submitted standard language to be considered to stimulate discussion on the evaluation.

Next steps are to:

- Review ASCE 7 wind loadings and the current 1901 text to potentially refine the standard.
- Look at other relevant standards such as ANSI A 92.2 for insight
- Propose some appropriate language to review at fall meeting

B. ARFF –

C. Ambulance –

- The Subcommittee discussed the current revision process to NFPA-1917, and the pending development of an Ambulance Remount standard. The subcommittee agreed to serve as “eyes and ears” to FAMA on continuing industry developments, as well-utilized Purchasing Guides for ambulances already in existence.

D. Body –

E. Chassis –

Agenda

1. Introductions
2. Buyers Guides
3. NIOSH Cab Seating and NFPA1901 Proposed Language Review
4. Suggestions for improving future subcommittee meetings
5. Announce next meeting – Firehouse Expo, Nashville TN, Wed October 17 afternoon

Minutes

1. Roll call and passed sign-up sheet for Basecamp.
2. Explained Buyers Guides, identified authors, and provided instructions for writing/submitting.
 - a. HVAC – Mark Bartlett (Spartan) volunteered
 - b. Tires – Woody Savage (Michelin) confirmed
 - c. Engine Air Intake – Chad Trinkner (Pierce) – need to confirm
 - d. Specifying for Maintenance – Drew Sutphen (Sutphen) confirmed and provided ideas
 - e. Front Suspension – Chad Trinkner (Pierce) – need to confirm
 - f. Rear Suspension – Bob Albano (Hendrickson) – confirmed and provided ideas
 - g. Cab Storage – Mike Adams – draft complete and submitted for review
 - h. Occupant Protection and Seats – Dan Veselsky (IMMI) – combining two topics to reduce overlap
 - i. Winches – Steve
 - j. Wheels – Greg Polka (Real Wheels) – volunteered
 - k. Other ideas: Emissions Systems – Scott Beecher (Wards)
 - l. Wes Chestnut committed to post link to Basecamp
 - m. Asked for Outlines/Drafts by mid-May with goal to review final draft by Firehouse Expo
3. NIOSH Cab Seating and NFPA1901
 - a. Asked for feedback to be sent to Chris and Tim Johnson – one company has provided feedback.
 - b. Group provided contact names to provide input to seat language:
 - i. Seagrave – Bob Dinse
 - ii. Ferrara – Ryan Nawrocki
 - iii. Sutphen – Todd Winneburg
 - iv. Spartan – Mark Bartlett
 - v. Pierce – Dan Chomic
 - vi. E One – Joe Hedges
 - vii. Rosenbauer – Dan VanAltan
 - viii. KME – Jason Davis
 - ix. Marion – Curt Ignacio
 - x. Freightliner/Ford/International – no names provided
 - c. Need to send email with overview of why we need to consider thoughtfully and ask
 - i. % of seats by width produced today
 - ii. % of production impacts (what could not have been built with new standard)
 - iii. Discussion about rear vs. front
 - iv. Propose any feasible alternatives
 - v. Explain potential commercial impact
 - vi. Suggestions on draft
 1. Target 50th percentile, not 99th percentile
 2. May require tunnel modifications which require expensive revalidation
 3. Would result in a limit of 3 seats across the back (112 inches shoulder width as written)
4. Suggestions for future meetings - Separate rooms would allow for better discussion for large groups like chassis

F. Electrical –

- The buyers guides we have received so far have been uploaded to Basecamp. I will get everyone who attended the meeting access to Basecamp so they can comment on each guide. Once the committee agrees a Guide is complete, we will forward the Guide to Sonya for posting on the www.Fama.org website.
- Make changes to the documents on Basecamp or make comments on Basecamp and either John, Sonya, or I will update the documents on Basecamp.
- Other Topics Discussed: Randy at Vista Brake Lock has volunteered to write a user's guide for security systems for a fire truck. Theft is increasing with Fire Trucks, and from a Homeland

Security Point of View, I think we should start discussing if this should be a feature that should be required.

- Wireless technologies: It was discussed if a new separate committee for wireless technologies should be created. Kyle Darley and Cory Hohs have drafted a letter to FAMA (it is attached) requesting a new committee be formed and they have volunteered to run it. We will discuss this topic again in Nashville.

G. Foam –

- We had 18 in attendance.
- Copies of the current Proportioner Buyers Guide TC030 were distributed and were posted on Basecamp two weeks previous. The group reviewed the Guide. It was suggested that the guide should at least mention foam transfer and foam refill systems. It was also brought up that NFPA 1906 foam chapter should be listed. Changes will be made along with any changes suggested at Basecamp by May 12. The final draft will be submitted for editing and submission to the board by May 26.
- Nobody volunteered to start a draft of a CAFS Buyers Guide. Ryan Darley was to check with Troy Carothers to gauge interest. Meeting adjourned.

H. Pumps & Plumbing –

Discussion on the following topics, and actionable items & responsible parties:

- We had 24 people signed the subcommittee sign-in sheet.
- Buyers Guide – Pump Pressure Governors: Dave Guynn provided a draft proposal. I will be sharing that with the Pump & Plumbing group for feedback/approval. Then it will be sent to Tech Committee Chairs for review and forwarding for approval by the Board.
- FDSOA Presentation: Water monitors: Doug Miller (Task Force Tips) will lead, Eric Combs (Safe Fleet –Elkhart), Jason Riegenbach (Idex Corp – Akron) to assist with content and presentation in January. We will get together in coming months to outline content, then meet again in fall to put it all together & prepare.
- Hose Testing Position White Paper: Position to use hose testing equipment and not use apparatus pumps. Pump manufacturers best source of information. Wayne Hable (Darley) and Tom Mettler (Waterous) to collaborate and send to our subcommittee for review, then to tech chairs for board approval/publication
- October FAMA Tech meeting in conjunction with Firehouse show in Nashville: Doug Miller unable to attend due to prior company commitment. Mike Sulmone will stand in and lead the group.
- Basecamp: Newer members to provide e-mail info to be added. Doug Miller to send invitations (COMPLETED 5/3/2017)
- Midship Pump Driveline input and output shaft phasing: Wayne Hable (Darley) believes he has information that he can provide to the group on best engineering practices related to this topic.

FAMA Technical Committee Meeting
April 27, 2017
Indianapolis, IN

Member Company Attendance
[based on meeting registration/sign-in at meeting]

Akron Brass Company	Oshkosh Airport Products
Allison Transmission Co.	Pierce Manufacturing, Inc.
AMDOR, Inc.	PPG Industries
Boise Mobile Equipment, Inc.	Pro Poly of America, Inc.
C.E.T. Fire Pumps Mfg., Ltd.	RealWheels Corporation Inc.
Cast Products, Inc.	Rescue 1
COXREELS	ROM Corporation
Cummins Inc. - Engines	Rosenbauer America, LLC
Custom Fire Apparatus Inc.	Safetek Emergency Vehicles Ltd.
Danko Emergency Equipment Co.	Seagrave Fire Apparatus LLC
Dynatect Manufacturing, Inc.	Seats, Inc.
E.J. Metals	Signature 4
Elkhart Brass Mfg. Co., Inc.	Smart Power Systems
E-ONE	Smeal Fire Apparatus Co.
Federal Signal Corporation	Spartan Emergency Response
Ferrara Fire Apparatus, Inc.	Superwinch LLC
Fire Research Corporation	Sutphen Corporation
Fort Garry Fire Trucks	Task Force Tips, Inc.
Fouts Bros	The Will-Burt Company
H.O. Bostrom Company, Inc.	Trident Emergency Products, LLC
Hale Products, Inc.	United Plastic Fabricating
Hansen International, Inc.	USSC Group Valor Seating
Hendrickson	Vista Brake Lock LLC
HiViz LED Lighting	VT Hackney
IMMI	W.S. Darley & Company
Kimtek Corporation	Ward Diesel Filter Systems
KME Fire Apparatus	WATERAX
Marion Body Works, Inc.	Waterous Company
Maintainer Custom Bodies	Whelen Engineering Co., Inc.
Metalfab Ltd.	
Michelin North America	
Midwest Fire Equipment & Repair Company	