

NFPA 1901/1906 Committee Meeting Highlights

Second Draft Meeting
Charlotte NC
July 22-24, 2014
Roger Lackore

1901 STANDARD FOR AUTOMOTIVE FIRE APPARATUS

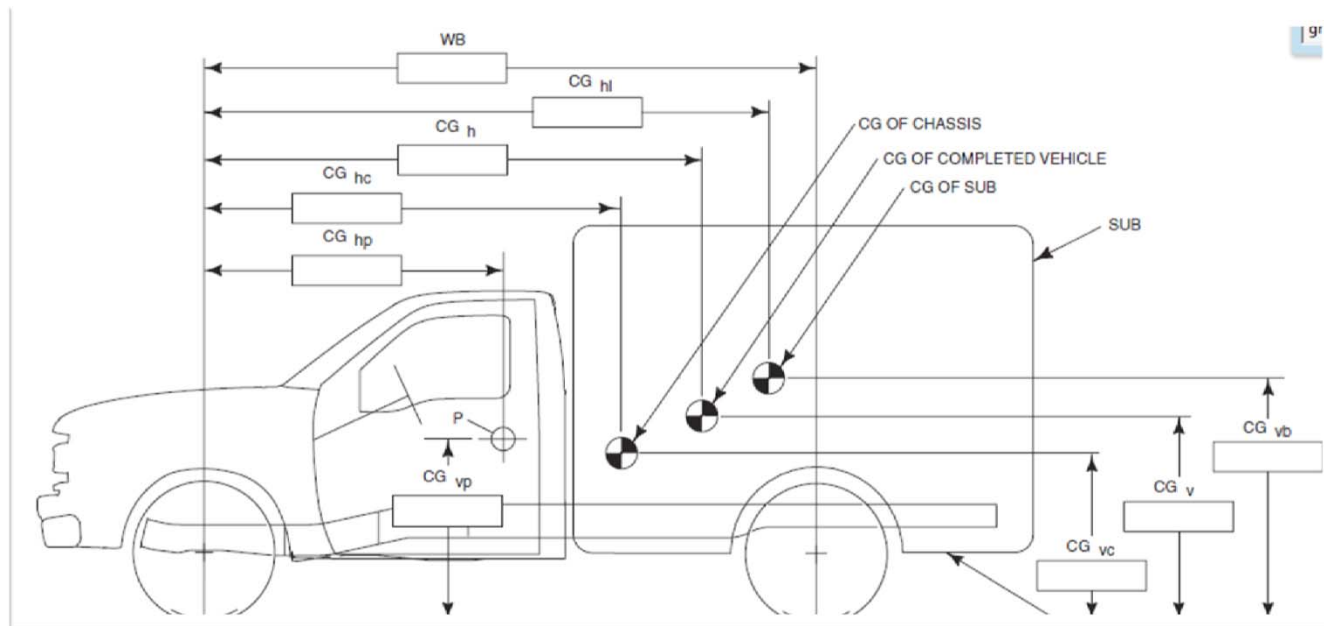
Purchasers Responsibility

- Replaced the specific list of information purchase must provide with a general statement and reference to Annex B.

1901-150	AUTOMOTIVE FIRE APPARATUS
General Requirements — Chapter 4	
Special design features required on this apparatus: _____ _____ _____ _____	
What are the maximum allowable dimensions of the apparatus?	
Overall height in inches (millimeters): _____ (measured at the highest projection)	
Overall length in inches (millimeters): _____ (measured at the front and rearmost projections)	
Wheelbase in inches (millimeters): _____ (measured from the center of the front axle to the center of the rear axle)	
Width in inches (millimeters): _____ (measured at the outside of the mirrors)	
Gross vehicle weight in pounds (kilograms): _____	

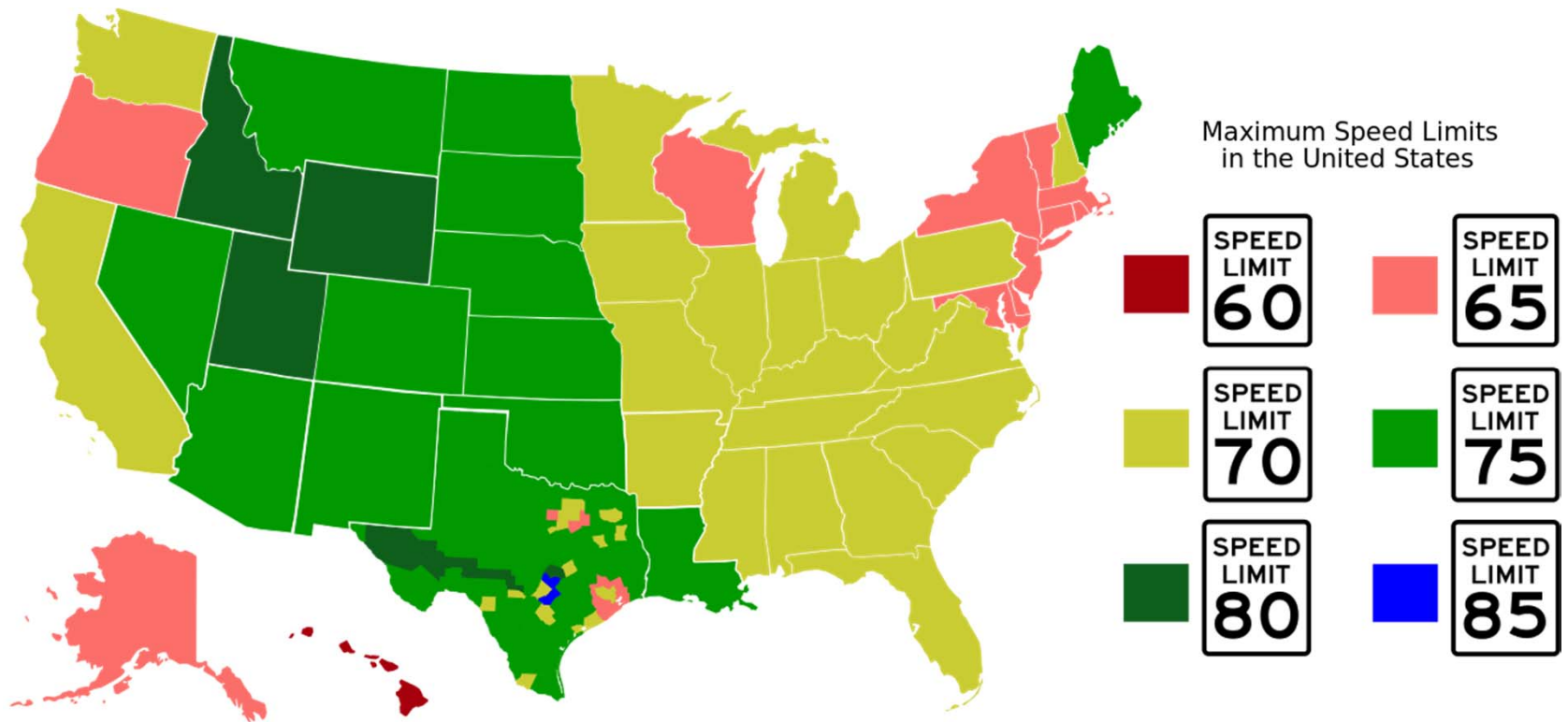
CG Requirement

- Added “the chassis manufacturers’ maximum CG guidance should not be exceeded.”
- Using the 80% of axle track rule in the standard today can place the CG higher than what Ford allows.



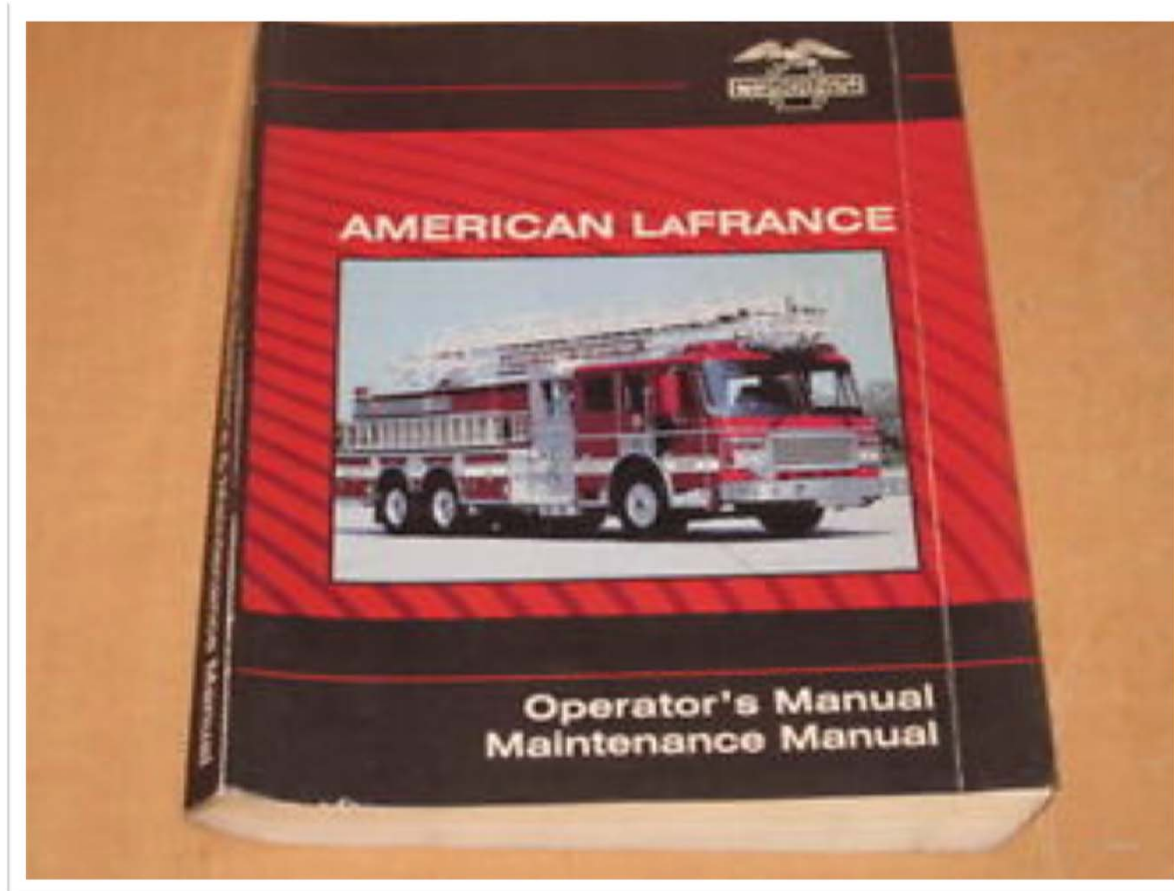
Top Speed

- 68 and 60 mph max speed limits retained.



Operator Manuals

- Only one hard copy set required vs two.



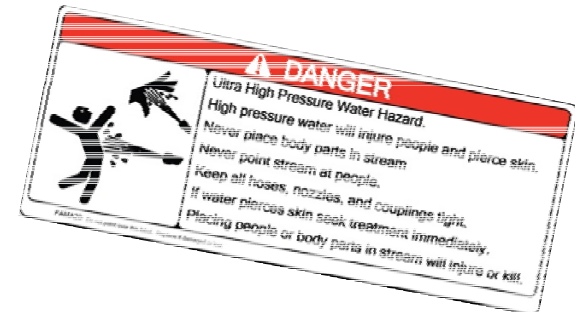
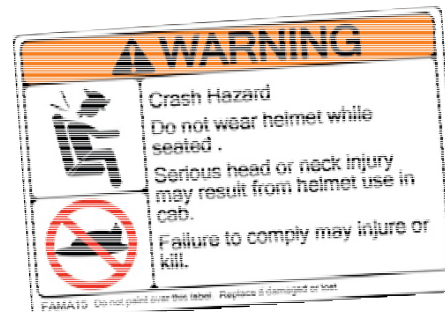
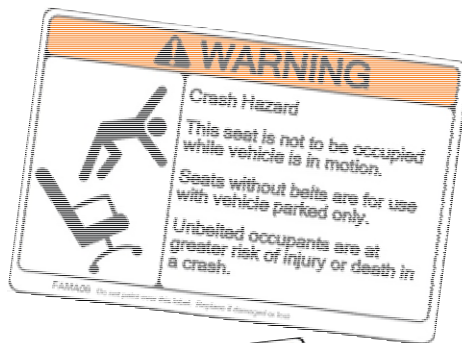
FAMA Safety Guide

- The FAMA Safety Guide was added to the list of items required to be supplied with the apparatus.



FAMA Safety Signs

- Inclusion of many of the FAMA safety signs was confirmed, a few more added, and the specification wording simplified.



Statement of Exceptions

- Removed the paragraph stating that the apparatus must be modified to full compliance before being placed in service.



Public Comment No. 58-NFPA 1901-2014 [Section No. 4.21.3]

~~4.21.3—~~

~~An apparatus that is delivered subject to a Statement of Exceptions other than a certification of full compliance shall not be placed in emergency service until the apparatus has been modified as necessary to accomplish full compliance with this standard.~~

Statement of Problem and Substantiation for Public Comment

This standard is to define the minimum requirements for design and performance of fire apparatus. It does not have the jurisdiction to determine when a vehicle can be placed into service. This is a departmental decision which could be based on non-compliance to the standard but should not be mandated by the standard itself.

DPF Regeneration

- Details of the specification were removed, relying on the engine manufacturers' design.
- No Manual regen switch required for chassis less than 20,000 GVW.



Air Brake Exclusion Eliminated

- The 29,000 lb air brake exclusion in FMVSS 121 for stopping distance, application and release times, air chamber capacity, etc... will not be allowed for fire apparatus.



Brake Lights and Warning Lights

- The statement condoning the practice of having the warning lights turn steady red when the brakes are applied was removed from the standard.
- Additional brake lights or bars are still an option for those who desire extra stopping indication.



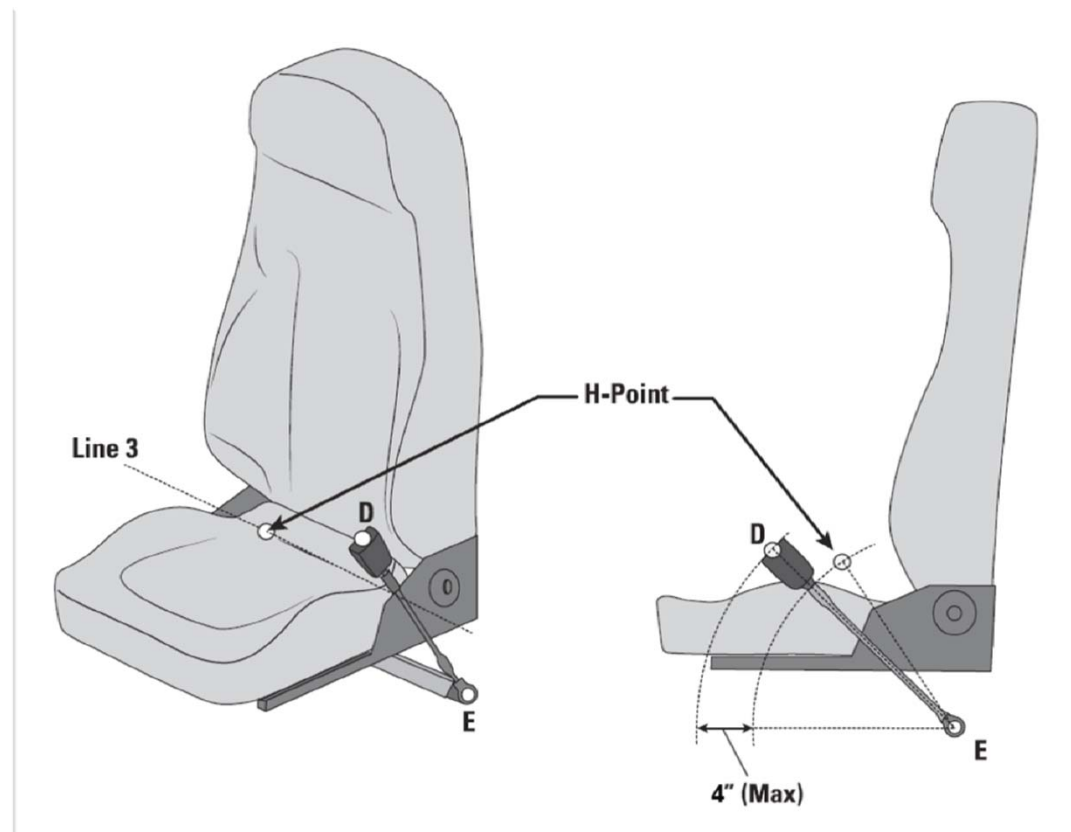
Hose Bed Illumination

- Test criteria for measuring light levels in the hose bed was modified to allow any dividers or hose bed covers to be removed during the test.



Seat Belt Buckle Stalk Length

- Limitation placed on the seat belt buckle stalk length of 4 inches past the h-point of the seat.



Seat Belt Color

- Webbing color (red or orange) shall not apply to GVW less than 19500



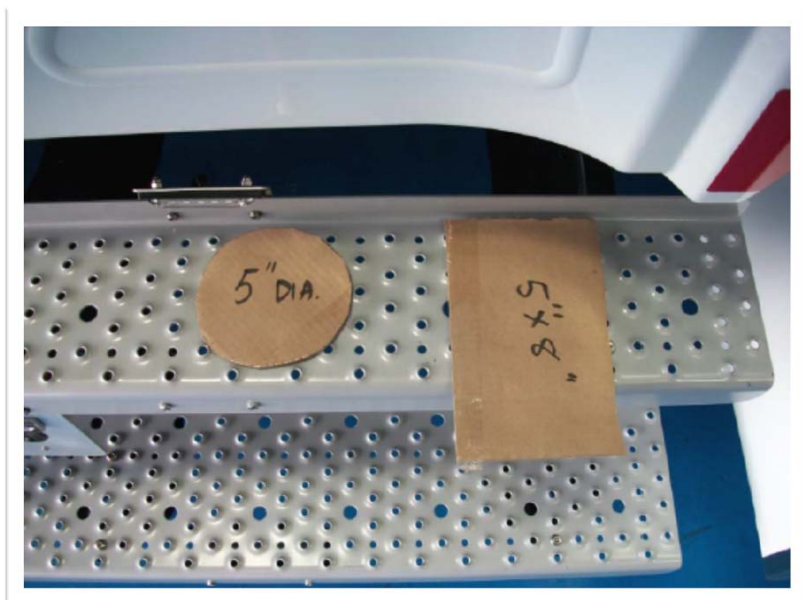
Seat Space Width

- No change to seating space requirements
- Committee agreed with the desire to provide additional room, but felt the extensive trade-off decisions should be determined by the purchaser.

Combined Male & Female	Mean	5 th %ile	95 th %ile
Bi-deltoid breadth in gear (Shoulder)	27.8	24.1	31.3
Bi-deltoid breadth, no gear (Shoulder)	22.4	19.1	26.1
Hip breadth in gear	23.5	20.3	26.7
Hip breadth, no gear	17.2	15.1	19.6

Step Toe Clearance

- Toe clearance reduced from 8 to 6 inches.



Horizontal Step Offset

- The maximum horizontal offset between steps shall not exceed 18 in. (460 mm).



Tiller Cab Integrity

- Tiller cabs shall meet the requirements of SAE J2422, Cab Roof Strength Evaluation — Quasi-Static Loading Heavy Trucks



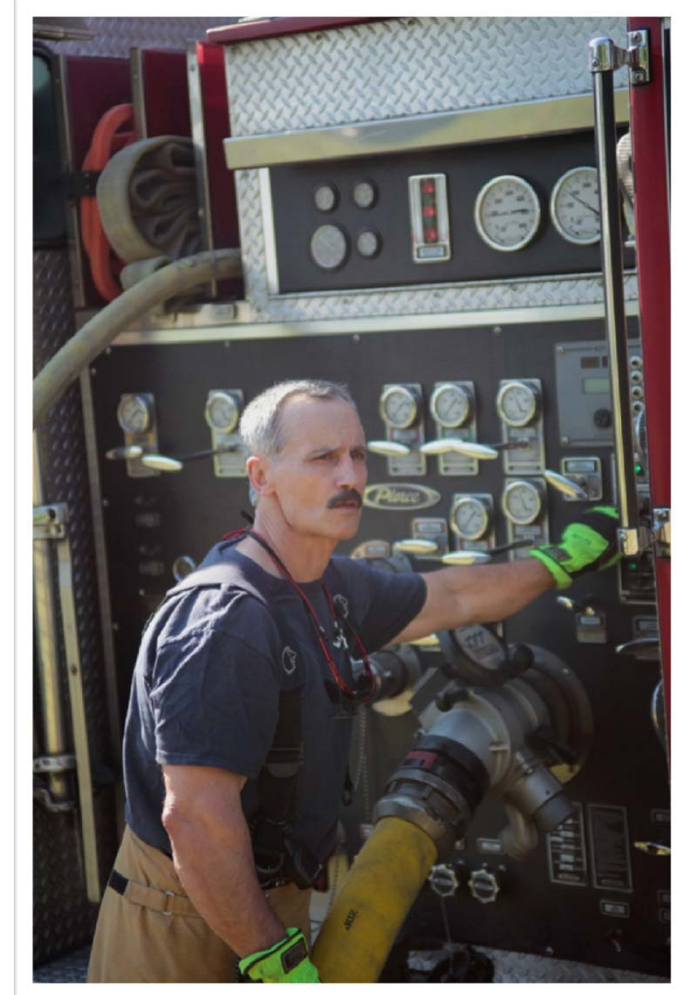
Designated Walking Areas

- Text for yellow line retained and modified to allow orange line.
- Intent is to force manufacturers and purchasers to consciously determine and communicate where FFs should and should not be walking.



Water Valve Operation Force

- ~~Each discharge outlet shall be equipped with a valve that can be opened and closed by the operator with a maximum force of 55 lbf (240 N) from full open to full closed or from full closed to full open with 250 psi (1700 kPa) pump discharge gauge pressure and at the flows shown in Table 16.7.1~~



OK to Pump Re-Write

- Section re-written to remove redundant words and simplify the requirements
- No substantive change.



Hydrostatic Pump System Test

- There has always been a requirement for the pumping system to withstand 500 psi pressure, but the required test was for only 250 psi.
- Testing section has been revised to correct this with appropriate exclusions for parts of the system that will never see high pressure.



Remote Pump Test Witnessing

- Option for off-site witnessing of pump testing by the certification agency so long as technology is in place that will ensure verification.



Aerial Floodlight Brightness

- Luminosity requirements revised for the aerial floodlight from 10,500 to 9000 lumens.
- Requirement added to measure the actual light output using a goniophotometer rather than a theoretical calculation.



Aerial Platform Railing

- The continuous guard railing shall be capable of withstanding a force of 225 lbf (1000 N) applied at any point from any direction without permanent deformation.
- Each gate shall be capable of withstanding a 1000 lb force (4000 N) applied at the least favorable position in the least favorable direction, without opening outward.



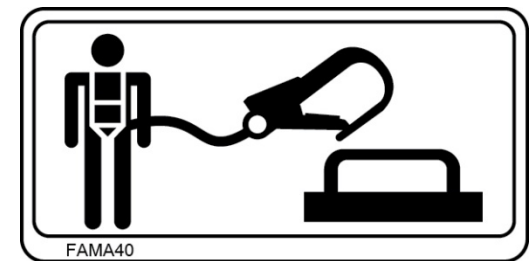
Aerial Envelope Control Ratings

- If the elevating platform is rated in multiple configurations, the manufacturer shall describe these configurations, including the rated capacity, at each operating position. This information shall be provided in the operations manual and on a capacity label or on an electronic display at the turntable and platform operator's control stations.



Aerial Platform Fall Protection

- Provisions shall be made so that personnel working on the platform can attach fall protection harnesses.
- At least one attachment point shall be provided for each 250 lb. (114 kg) load rating of the platform.
- Anchorage points provided for fall protection harnesses shall be clearly labeled and rated for a minimum of 450 lb (205 kg).



Ultra High Pressure Pumps

- New chapter 28 provides requirements for Ultra High Pressure pumping systems.



1906 STANDARD FOR WILDLAND FIRE APPARATUS

Crew Carrier Chapter

- New chapter defines a wildland crew carrier.
 - Seats & occupant restraints.
 - Doors
 - Structural Integrity
 - Means of Escape



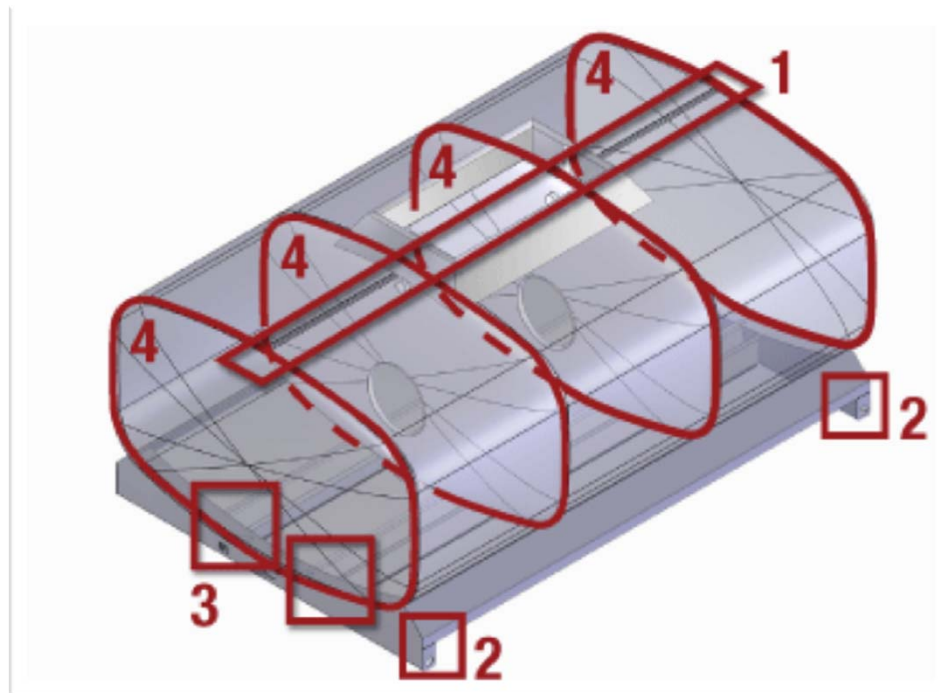
On-Board Pump and Roll Fire Fighting

- Text in first draft was retained.
 - Seated and belted position located behind cab
 - Roll cage with low roof that forces occupant to sit.
 - Safety signs max 10 mph while occupied
 - Seat belt warning indicator & communication with driver.
- Added requirement for fire curtains
- Public comment to 1500 committee planned.



Tank Baffles

- Only one longitudinal baffle required for tanks up to 102 inches wide.



Annex D

- Annex D was updated and is now consistent with the requirements of 1901
 - 15 years first line
 - 10 additional years of reserve w/ 1912 refurb