

NFPA TECHNICAL COMMITTEE ON AMBULANCES

MEETING MINUTES

May 11-13, 2010
Embassy Suites - Biltmore
Phoenix, AZ

Principal Members Attending:

David H. Fischler – Chairman	
Andrew J. Alger	Progressive Engineering, Inc.
Wesley D. Chestnut	Spartan Chassis, Inc.
David B. Cole	Life Line Emergency Vehicles
Charles D. Drake	SJC Industries Corporation
Donald Frazeur	Los Angeles Fire Department
James D. Green	National Institute for Occupational Safety & Health
Thomas Hillenbrand	Underwriters Laboratories, Inc.
Paul Holzapfel	Wheeled Coach Industries, Inc.
Jerry Johnston	Nat'l Assn of Emergency Medical Technicians
J. Roger Lackore	Pierce Manufacturing, Inc.
James J. Juneau	Juneau, Boll, Stacy & Ucherek, PLLC
David M. Lamon	Horton Emergency Vehicles
Joseph V. Maruca	National Volunteer Fire Council
John W. McDonald	US General Services Administration
John McLoughlin	Fire Research Corporation
Gary P. Morris	International Association of Fire Chiefs
Robert Neitzel	Navistar International Corporation
Suzanne Prentiss	Nat'l. Assn. of State EMS Officials
Steven Alan Rabine	Glatfelter Insurance Group (VFIS)
Aarron Reinert	Lakes Region EMS
Kenneth Southard	Plano (TX) Fire Department
Stephen C. Spata	National Truck Equipment Association
Ronald Thackery	American Medical Response, Inc.
William Walton, Jr.	Delaware State Fire School
Stephen Wilde	EVT Certification Commission
Laurence J. Stewart	NFPA Staff Liason

May 11, 2010

0800 Meeting called to order by Chairman Fischler. Self-introduction of committee members and guests.

MOTION by Mr. Spata to approve and accept the draft minutes from the Tampa meeting.

VOTE: MOTION CARRIES

Meeting procedures - Chairman Fischler reviewed meeting procedures to be observed, reviewed of NFPA manual requirements regarding participation at meeting by members, alternates and guests. Chairman Fischler announced that he will waive the requirement of prior written notice of intent to speak at this meeting, and he will allow a four minute block of time prior to the Committee's discussion of a topic during which guests may offer comments, in the event that guest are present and desire to be heard. Review of NFPA procedures regarding recording of meeting proceedings. Review of voting procedures for Committee members and alternates.

Document Timetable – NFPA staff liaison Stewart reviewed the timetable for the current document. The draft NFPA 1917 document will be published to the public on July 9, 2010, for public proposals. Proposals will close on November 23, 2010. A final report of the Committee regarding public proposals (ROP) is due from the Committee not later than February 25, 2011. Existing material may be removed from the draft document, and new material may be added during the ROP phase. The ROP report will be published on June 20, 2011, beginning a 60 day comment period. The committee will address the public comments at another meeting not later than November, 2011, New material may not be added during the ROC stage, although material can still be removed from the draft standard. The Committee's Report on Comments (ROC) will be published thereafter, and the NFPA will vote on the document during the June 3-7, 2012 Annual Meeting. Assuming approval at the NFPA annual meeting, the NFPA Standards Council will thereafter approve and "issue" the document on June 13, 2012, which document will become an effective NFPA Standard after 20 days, unless there arise formal objections. The Standard would likely be on a three year revision cycle thereafter.

Members were strongly encouraged to submit their ideas for the document during the proposals period as a public proposal rather merely raising the idea within the Committee meetings in hopes that the Committee will address the matter as a Committee proposal.

Chairman Fischler reviewed the original intent of the NFPA in establishing the Committee to collect the various design and safety standards applicable to ground ambulances, improve and collate those ideas, then adopt a Standard which is an improvement upon what existed preciously.

Mr. Stewart reviewed issues relating to allowable use of other documents which may be referenced in the NFPA document, giving due consideration to intellectual property rights.

Mr. Spata discussed with the Committee the interaction between the NFPA Committee and the NTEA-AMD committee. Mr. Stewart spoke to the AMD committee during their meeting in Tampa last March. AMD has voted to allow NFPA the rights to use the AMD standards in the new NFPA Standard as an external reference only. AMD will consider allowing the Committee to have other uses of their materials on request by the NFPA Committee.

Mr. Lackore discussed his work on the draft which sought to incorporate the essence of the AMD test standards into a new Chapter 5 for the NFPA 1917 document. The test methods and procedures were revised so as to make them more performance-based, and to reconfigure the language to fit with typical NFPA formatting and phraseology. Because the AMD test procedures are not ANSI accredited, and because they cannot be externally referenced except in the annex of the NFPA document, there needs to be test standards promulgated by NFPA and subject to the control of the committee. The NFPA 1917 Standard will ultimately become an ANSI accredited standard because NFPA procedural requirements are ANSI compliant, therefore the test procedures contained therein will ultimately be ANSI accredited.

MOTION by Mr. Lackore to accept the proposed Chapter 5 (Testing) into the draft standard. Discussion of the Motion by the Committee members.

Further discussion ensued suggesting that it might be more beneficial to have a subgroup of the Committee members caucus in an effort to realign some of the Chapters before voting to incorporate them into the draft document.

Upon further consideration the Motion was WITHDRAWN.

MOTION by Mr. Lackore to adopt a proposed new Chapter arrangement and numbering matrix for the draft NFPA 1917 document as follows:

<u>CHAPTER</u>	<u>DESCRIPTION</u>	
1	Administration	
2	Referenced Publications	
3	Definitions	
4	General Requirements	
5	Chassis	(NFPA 1901 Chapter 12)
6	Body	(NFPA 1901 Chapters 14 & 15)
7	Patient Care	
8	Low Voltage Electrical	(NFPA 1901 Chapter 13)
9	Line Voltage Electrical	(NFPA 1901 Chapter 22)
10	Testing	

VOTE: MOTION CARRIES

How to Proceed Towards Adoption of the Draft Document - The Committee discussed the benefit to using the early part of this meeting to assemble a working document that is properly organized, includes everything in the right place, eliminates duplication and is internally consistent, after which the Committee would consider and vote upon the draft document on a Chapter by Chapter basis. The NFPA editors will then perform a clean-up of the draft document after which the draft can be published for comment. The Committee discussed the process by which public comments on the proposed standard would be presented to, and addressed by, the Committee as the draft is developed.

Discussion of the contents and organization submitted by the task groups for draft of Chapters 1 (Administration), 2 (Referenced Publications), and 3 (Definitions) as the initial submission for the new standard.

MOTION by Mr. Wilde to accept the format and numbering of proposed Chapters 1-3 of the draft document as submitted.

VOTE: MOTION CARRIES

Discussion of the contents and organization submitted by the task groups for the proposed draft of Chapter 4 (General Requirements).

MOTION by Mr. Lackore to accept the format and numbering of proposed Chapter 4 (General Requirements) of the draft document as submitted.

VOTE: MOTION CARRIES

Discussion of the contents and organization submitted by the task groups for the proposed draft of Chapter 5 (Chassis).

MOTION by Mr. Lackore to accept the format and numbering of proposed Chapter 5 (Chassis) of the draft document as submitted.

VOTE: MOTION CARRIES

Discussion of the contents and organization submitted by the task groups for the proposed draft of Chapter 6 (Body), which were formerly developed as proposed Chapters 14 and 15. Mr. Drake (Chair, Body Task Group) and Mr. Lackore (Chair, Chassis Task Group) discussed the work of their respective task group in the development of this portion of the standard.

MOTION by Mr. Lackore to undertake an effort to combine, assemble, format and re-number the former Chapters 14 and 15, and other related materials, to create the proposed Chapter 6 (Body) of the draft document.

VOTE: MOTION CARRIES

Discussion of the contents and organization submitted by the task groups for the proposed draft of Chapter 7 (Patient Care). Many of these same items seem to be currently addressed in other chapters of the draft document, particularly the Chassis and Body sections. The committee feels that the issues dealing with patient care should be all addressed in a single and separate chapter for ease of reference.

MOTION by Mr. Lackore to undertake an effort to move the oxygen system and aspirator system requirements into the proposed Patient Care chapter, and to combine, assemble, format and re-number the materials related to patient care issues, to create the proposed Chapter 7 (Patient Care) of the draft document.

VOTE: MOTION CARRIES

Discussion of the work, contents and organization submitted by the task groups for the proposed draft of Chapter 8 (Low Voltage Electrical) led by Mr. Wilde (Chair, Electrical Task Group). Much of the siren performance requirements are incorporated from the AMD standard. The group added an appendix item for color temperature of lighting components, and for check-out lighting.

MOTION by Mr. Wilde to accept the format and numbering of proposed Chapter 7 (Low Voltage Electrical) of the draft document as submitted.

VOTE: MOTION CARRIES

1000 Morning Break

1020 Discussion of the work, contents and organization submitted by the task groups for the proposed draft of Chapter 9 (Line Voltage Electrical) led by Mr. Wilde (Chair, Electrical Task Group). Much of the line voltage requirements in the draft came from NFPA 1901, including generator and testing requirements.

MOTION by Mr. Wilde to accept the format and numbering of proposed Chapter 8 (Line Voltage Electrical) of the draft document as submitted.

VOTE: MOTION CARRIES

Discussion led by Mr. Lackore regarding efforts to be expended by the committee during the evening hours to merge the various testing requirements from the other chapters into a single "Testing" chapter that would then be incorporated into the new draft standard as "Chapter 10."

Discussion led by guest Dan Sqogquist (Chair, AMD Seating & Restraints Subcommittee) who was invited by chairman Fischler to present information regarding AMD's work regarding seating developments for ambulances and some basic understandings regarding patient compartment seating issues.

Discussion led by Mr. Maruca of whether the "Patient Care" chapter is really a misnomer for a section that really should be limited to those aspects of the vehicle that are intended for facilitating medical care to the patient. The committee generally recognizes that there is quite a bit of overlap between Chapters, such that one characteristic of the vehicle may affect a number of the disciplines that are addressed by separate chapters of the document. Mr. Cole suggested that the Patient Care chapter might be better limited to things like medical oxygen, aspiration systems, medical equipment, etc.

MOTION by Mr. Cole to rename proposed Chapter 7 from "Patient Care" to "Patient Care Systems."

VOTE: MOTION FAILS

MOTION by Mr. Lackore to eliminate proposed Chapter 7 (Patient Care) and incorporate the substantive contents thereof into the Body Chapter, renumbering the remaining chapters accordingly, as follows:

<u>CHAPTER</u>	<u>DESCRIPTION</u>	
1	Administration	
2	Referenced Publications	
3	Definitions	
4	General Requirements	
5	Chassis	(NFPA 1901 Chapter 12)
6	Body	(NFPA 1901 Chapters 14 & 15)
7	Low Voltage Electrical	(NFPA 1901 Chapter 13)
8	Line Voltage Electrical	(NFPA 1901 Chapter 22)
9	Testing	

VOTE: MOTION CARRIED

Discussion by Chairman Fischler proposing that the Committee now begin focusing on creating the substance of the initial draft NFPA 1917 document by sequentially reviewing, discussing and voting upon the content proposed by the various task groups upon which the Committee can reach consensus, beginning with Chapter 1, and progressing through the rest of the document.

CHAPTER 1 -- ADMINISTRATION

MOTION by Mr. Lackore to accept the contents of proposed Chapter 1 into the initial draft document for NFPA 1917.

MOTION by Chief Frazier to amend Mr. Lackore's motion to strike certain language from section A.1.4, and to accept the contents of the proposed Chapter 1 as modified.

Chief Frazier's proposed amendment was accepted by the makers of the original Motion.

VOTE: MOTION CARRIES AS AMENDED

CHAPTER 2 -- REFERENCED PUBLICATIONS

MOTION by Mr. Lackore to accept the contents of proposed Chapter 2 into the initial draft document for NFPA 1917.

MOTION by Mr. Green to amend Mr. Lackore's motion to strike section 2.3.19, and to accept the contents of the proposed Chapter 2 as modified.

Mr. Green's proposed amendment was accepted by the makers of the original Motion.

VOTE: MOTION CARRIES AS AMENDED

CHAPTER 3 -- DEFINITIONS

MOTION by Mr. Lackore to accept the contents of proposed Chapter 3 into the initial draft document for NFPA 1917.

Discussion led by Mr. Drake regarding the definition of "patient compartment" for Type 2 ambulances as "the body area beginning immediately behind the forward bulkhead." The "bulkhead" is a vertical partition which divides the ambulance driver from the patient compartment. Mr. McDonald will work on language to address this issue for later consideration by the committee.

Discussion led by Mr. Cole regarding the definitions of "patient torso position left" and "patient torso position right" in defining crew seat positions.

VOTE: MOTION CARRIES

CHAPTER 4 -- GENERAL REQUIREMENTS

MOTION by Mr. Lackore to accept the contents of proposed Chapter 4 into the initial draft document for NFPA 1917.

Discussion led by Messrs. Drake, Lamon and Spata regarding proposed language in section 4.4.1.1 requiring a contractor to include a detailed description of the vehicle which includes the estimated in-service weight of the ambulance. The advance defining of the usable payload minimum should be an obligation of the user, not the manufacturer. Mr. Lamon proposed that the manufacturer's requirement to state estimated payload weight should apply only to the completed product, and should not be imposed as an estimate made in advance of production. Members of the committee who represent ambulance users (Messrs. Southard, Reinert, Thackery) believe that it is important that the manufacture provide the user with meaningful information regarding the allowable added payload for the vehicle as designed so that the user can have some guidance regarding limitations on the addition of equipment. Mr. Green proposed that section 4.3 might be modified to require the user to specify a list of the equipment that is intended to be carried on the vehicle.

Mr. Maruca proposed that the user specify what its minimum payload requirements are as part of the bid solicitation process. Mr. Lackore proposed an amendment to section 4.3 which would place on the purchaser an obligation to specify what payload requirements are needed, as well as what additional equipment might be carried in addition to the minimum required by the standard. Further discussions were conducted regarding a manufacturer's ability to predict in advance the estimated usable payload of the vehicle versus the user's ability to estimate the needed payload carrying requirements. Mr. Green proposed that section 4.3.1 be modified to exclude any reference to "equipment in excess of the minimum required" because this standard will not contain any minimum equipment list. The current language was carried over from NFPA 1901.

The committee discussed the third-party test and certifications standards in section 4.7. Some members feel that requiring ISO/IEC 17020 certified and accredited test facilities is too restrictive and would add cost to the vehicle unnecessarily. This ISO/IEC requirement comes out of the KKK Specification and is the current requirement under KKK for new models. Others on the committee feel that the requirements should be included in the initial standard and then addressed in response to the public comment in order to get a broader commentary on controversial issues.

Discussion of section 4.11 regarding vehicle data recorders – cost versus benefit, and whether the provision should be included in the main body of the standard or in the annex. Additionally, there seems to be a culture within the fire service regarding the non-use of seatbelts which can be corrected through observation and monitoring of belt use. Mr. Thackery questioned whether the monitoring of seatbelt use is technologically achievable for crewmembers in the back of the ambulance. Mr. Nietzel reflected that his company builds many VDR equipped vehicles with no difficulty, and that they have not received significant pushback from users/purchasers relating to that requirement.

Subpart 7 of section 4.20.1 regarding provision of certification documents for certain AMD tests was removed by consensus of the committee.

MOTION by Mr. Juneau to amend Mr. Lackore's motion to accept the contents of the proposed Chapter 4 as modified.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to accept the contents of proposed Chapter 4 (as amended) into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

1315-1415 Lunch Break

1425 -- 1900 Meeting resumes. Working groups were formed under the leadership of Mr. Lackore (resolution of conflicts between chapters), Chief Frazier (testing procedures) and Mr. Wilde (realignment of the Chassis chapter) to address some of the broader issues that were raised during the morning session, and report their findings back to the full Committee. A reassembled draft document was compiled and was e-mailed to committee members for further review and discussion.

1900 Meeting adjourned for the day.

May 12, 2010

0800 Meeting convened by Chairman Fischler. The Committee members were reminded of the NFPA policies and meeting procedures in effect.

CHAPTER 5 – CHASSIS & VEHICLE COMPONENTS

Mr. Thackery commented on section 5.1.2 regarding the allowance of 250 pounds (114 kg) per designated seating position in calculating the estimated in-service weight of the vehicle. Research indicates that a more appropriate assumption would be the median weight of approximately 170 pounds, based on patient weight data with a sample size of 33,000 patients. Requiring that the higher weight be used in the calculation would eliminate most of the Type II chassis, and would tend to drive customers towards medium duty chassis.

MOTION by Mr. Thackery to change the allowance per designated seating position in section 5.1.2 to 170 pounds.

Mr. Drake commented that a typical ambulance has many more "designated seating positions" than are typically occupied in the ordinary course of usage. Mr. Nietzel commented that it is always better to overestimate the weight than to underestimate. The 95th percentile weight would be a more appropriate assumed weight, rather than the 50th percentile weight of 171 pounds.

MOTION amended by Mr. Thackery to change the allowance per designated seating position in section 5.1.2 to the 50th percentile weight of 171 pounds.

VOTE: MOTION CARRIES

Discussion of Chapter 5 sections regarding weight distribution, engines & engine systems, cooling system, exhaust system, braking system, and suspension. Detailed discussion of vehicle approach and departure angle requirements.

MOTION by Mr. McDonald to change the section 5.8.1 required approach angle from 20° to 8°, and to change the required departure angle from 10° to 8°, and to eliminate the "ramp breakover angle" requirement completely.

VOTE: MOTION FAILS

Further discussion regarding draft provisions addressing wheels & tires and vehicle stability. Under the current draft, unless the ambulance is equipped with an electronic stability control (ESC) system, the vehicle engine would be governed to limit top speed to 60 mph. Some Ford dual-wheel chassis are not currently offered with ESC as an option, although such may be the case by the time this standard is issued in 2012.

MOTION by Mr. Cole to delete the 60 mph speed restriction for non-ESC vehicles in section 5.10.1.2.

VOTE: MOTION FAILS

Further discussion of sections addressing bumpers, cab seals, front seats, mirrors, and cab integrity. Roof crush and frontal strength testing will be required for vehicles having a GVWR of 26,000 lbs and above. FMVSS requires such testing for vehicles of lesser GVWRs.

MOTION by Mr. Lackore to delete the word "chrome" from section 5.11.1 regarding bumpers.

VOTE: MOTION CARRIES

0920 Morning break

MOTION by Mr. Holzapfel to accept the contents of proposed Chapter 5, as modified, into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

CHAPTER 6 – PATIENT COMPARTMENT CONFIGURATION

Discussion of sections dealing with ambulance patient compartment configuration, body mounting, structural integrity, and body sealing. Discussion of body sealing issues and carbon monoxide penetration dangers.

MOTION by Mr. Alger to eliminate sections 6.5.2.1 and 6.5.2.2 from the draft, and to instead require that the patient compartment be equipped with a constant-monitoring carbon monoxide detector.

MOTION amended by Mr. Lackore (with consent from Mr. Alger) to retain the current sections 6.5.2.1 requirements, eliminate 6.5.2.2 testing requirements, and add a requirement that the patient compartment also be equipped with a constant-monitoring carbon monoxide detector.

VOTE: MOTION CARRIES AS AMENDED

Discussion of sections dealing with wheel housing, cab partitions, handrails & handholds, patient compartment entry doors, means of escape, step wells and stepping surfaces.

MOTION by Chairman Fischler that a section 6.11.5 be added to require that vertical & horizontal interior step edges be outlined with a minimum 1 inch retroreflective stripe to promote visibility.

VOTE: MOTION FAILS

MOTION by Mr. Neitzel that a new section 6.11.5 be added (with the associated annex item) with wording similar in content to NFPA 1901 section 15.7.1.2 such that all steps be required to have a minimum surface area of 35 square inches (22,580 square mm) and be of such shape that a 5 inch diameter test disk does not overlap any side when placed on the step.

VOTE: MOTION CARRIES

Discussion of sections dealing with exterior storage, floors & floor coverings.

MOTION by Mr. Lackore to delete section 6.15.3 regarding test methodology for slip resistance of floor coverings.

VOTE: MOTION CARRIES

Discussion sections dealing with of insulation, interior storage, cabinets, interior surfaces, equipment mounting. NIOSH is supporting some AMD research regarding necessary mounting strength for equipment, the results of which are probably at least 18 months away. The current section 6.19 is a place holder intended for later revision to include specific equipment mounting and strength requirements.

Discussion of sections dealing with waste & sharps disposal, IV fluid mounting, and personnel capacity labeling. Current FMVSS standards require that vehicles having a GVWR of less than 10,000 pounds must state the number of designated seating positions in the final vehicle configuration. The FMVSS label would not include the patient cot. The proposed language would in section 6.22 would include the patient cot, and might conflict with the FMVSS label.

MOTION by Chief Frazier to modify proposed section 6.22 label to state the maximum number of allowable vehicle "occupants" instead of "personnel."

VOTE: MOTION CARRIES

Discussion of sections dealing with patient compartment seating, access to patient & occupant restraints. Discussion of the problems associated with efforts to restrain the crew member in the rear of the ambulance, including the deficiencies of squad-bench seating using Type 1 lap belts, advanced design movable automotive type seats, side loading patient cots, and other advanced designs under consideration and evaluation. NIOSH is engaged in testing of alternative restraint systems and should have further data available soon. Discussion of section 6.23.7.2 regarding the terminology used to describe the fore & aft positioning and alignment of a side-facing patient care provider's seat.

Discussion of sections dealing with seated head clearances, child seating restraints, cot retention systems, seat belt indicators. The required seat belt indicators would apply to all designated seating positions in the vehicle, and would include an audible alarm. Discussion of whether seat belt indicators can currently be provided on all OEM seats, particularly the medium duty Ford chassis.

MOTION by Mr. Reinert to delete proposed section 6.25 to exclude the seat belt warning requirements from the draft standard.

VOTE: MOTION FAILS

Discussion of sections dealing with HVAC systems.

MOTION by Mr. Alger to modify proposed section 6.26.4 to add a requirement that the HVAC system be capable of lowering the patient compartment temperature from 95°F to 78°F at 40% relative humidity within 30 minutes of operation.

VOTE: MOTION CARRIES

Discussion of sections dealing with interior noise.

MOTION by Mr. McDonald to modify proposed section 6.27.1 to eliminate the plus or minus 2 DB interior noise level tolerance.

VOTE: MOTION CARRIES

Discussion of sections dealing with reflective striping, metal finish & painting. Discussion of the chevron striping on the rear of the vehicle as required by NFPA 1901, and the consequent increase in nighttime visibility from the rear of the unit. There is considerable research supporting the increased conspicuity of the chevron striping pattern. Discussion of optional colors and patterns available, and the importance of setting a standard of pattern & color to identify fire & EMS vehicles uniformly nationwide:

MOTION by Mr. Lackore to modify proposed section 6.28 to add the substance of the NFPA 1901 rear chevron striping requirement into the draft standard.

VOTE: MOTION CARRIES

Discussion of sections dealing with vehicle oxygen & aspiration systems.

MOTION by Mr. Lackore to accept the contents of proposed Chapter 6, as modified, into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

Discussion regarding modifying section 4.10.2 to require that the controls & switches which are to be operated by the belted care provider shall be visible and within convenient reach of the designated primary patient care position while the ambulance is in motion.

MOTION by Mr. Lackore to modify section 4.10.2 to include a requirement that the controls & switches which are to be operated by the belted care provider shall be visible and within convenient reach of the designated primary patient care position while the ambulance is in motion.

VOTE: MOTION CARRIES

Chairman Fischler discussed with the Committee the timetable for handling proposals during the public comment period. It would be at least mid-December before the NFPA materials will be ready for the Committee to review. The FDSOA is scheduled for January 15-20, 2011 in Orlando. The proposal is for a 4 day meeting of the Committee in Orlando during January 10-14, 2011.

1155 -- 1300 Lunch Break

CHAPTER 7 – LOW VOLTAGE ELECTRICAL SYSTEMS AND WARNING DEVICES

Discussion of sections dealing with printed circuits, electrical system performance tests, wiring & wiring harnesses, surge protection, power supplies, maximum continuous electrical load and load management, and batteries. Discussion regarding whether there exists a need to specify "high cycle" batteries. Discussion regarding adjustments to current draw, and affected testing requirements.

MOTION by Chief Frazier to modify the language in section 7.3.2 per an extensive rewrite by Mr. Lackore.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to modify the language in section 7.4.3 adding a test for the battery voltage audible alarm system.

VOTE: MOTION CARRIES

MOTION by Mr. Holzapfel to delete section 7.6.1 (requires that batteries be of the "high cycle" type) from the draft standard.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to modify the language in section 7.6.7 (requires that a master load disconnect switch be provided) in the draft standard.

VOTE: MOTION CARRIES

MOTION by Mr. Alger to delete section 7.6.10 (requires that a green "battery on" pilot light be provided) from the draft standard.

VOTE: MOTION CARRIES

Discussion of the section dealing with engine starting devices.

MOTION by Mr. Alger to delete section 7.7 (regarding starting devices) from the draft standard.

VOTE: MOTION CARRIES

Discussion of sections dealing with temperature exposure, electromagnetic interference, and optical warning devices, power supplies, testing.

MOTION by Mr. Neitzel to move annex information A.7.10.12 (regarding use of flashing headlights) from the annex into the main body of the draft standard. After further discussion, the motion was withdrawn.

Discussion of sections dealing with alternate approved lighting systems, audible warning devices, and exterior lighting requirements.

MOTION by Mr. Wilde to include in the draft standard a new section 7.12.8 requiring step lighting at a minimum intensity of 2 fc over 90% of the step when the door is open.

VOTE: MOTION CARRIES

Discussion of sections dealing with scene and load lighting requirements.

MOTION by Mr. Holzapfel to delete sections 7.12.2.3 and 7.12.3.3 (requires that scene & load lighting fixtures be fastened to reinforced fixed body surfaces) from the draft standard.

VOTE: MOTION CARRIES

MOTION by Mr. Cole to change the illumination requirement for the patient loading area in section 7.12.3.1 be reduced from at least 3fc in intensity within a 10'x10' square from the vehicle to the KKK requirement of at least 1fc measured 5' away and 3" above the ground and 0.3fc measured 10' away.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to change the interior lighting illumination requirement for the area adjacent to vehicle doors in section 7.12.5 from at least 2fc in intensity to at least 0.3fc in intensity when measured 30" from the edge of the ambulance.

VOTE: MOTION CARRIES

Discussion of sections dealing with interior lighting requirements.

MOTION by Mr. Lackore to amend proposed section 7.12.5.1 to change the ground lighting illumination requirement to provide an average intensity of 1fc instead of 2fc when measured at each seating surface.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to amend proposed section 7.12.6.2.3 to require that interior lighting fixtures protrude not more than 1.5 in. from the mounting surface.

VOTE: MOTION CARRIES

Discussion of sections dealing with compartment lighting requirements.

MOTION by Mr. Lackore to amend proposed section 7.12.7.1 to require that minimum compartment lighting intensity be reduced from 2fc to 1fc.

VOTE: MOTION CARRIES

MOTION by Mr. Wilde to amend proposed section 7.12.8 to require that minimum compartment lighting intensity be reduced from 2fc to 1fc.

VOTE: MOTION CARRIES

Discussion of sections dealing with hazard or "do-not-move" lights.

MOTION by Messrs. Lackore & Wilde to amend proposed section 7.13 to further define the requirements for a red flashing "do-not-move" light in the ambulance cab, and to allow for electronic displays which convey the hazard information to the operator.

VOTE: MOTION CARRIES

Discussion of sections dealing with backup alarm, stop, tail & directional lights, and communications equipment.

MOTION by Chief Frazier to delete proposed section 7.16.3 from the draft standard.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to accept the contents of proposed Chapter 7, as modified, into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

1600 The Committee meeting adjourned for the day.

May 13, 2010

0800 Meeting convened by Chairman Fischler. Discussion of the need to schedule another Committee meeting in January or February of 2011 in order to review and pass on public comments and proposals. The Committee's Report on Proposals to NFPA is due not later than February 28, 2011. After consideration of scheduling conflicts, the best dates for the next Committee meeting appear to be February 8-10, 2011, possibly in Dallas, TX, or some other centrally located warm destination.

Mr. Lackore raised a couple of clean-up items which developed after reconsideration of the Committee's work regarding Chapters 5 and 6, and suggested that the Committee add a couple of Annex items to these sections of the draft document for clarity.

MOTION by Mr. Lackore to add an annex item A5.8 captured from NFPA 1901 regarding angle of approach and departure into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to add an annex item A6.11.5 captured from NFPA 1901 regarding the intent of the step size and placement requirements of section 6.11.5 into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

Discussion of an issue raised regarding Low Voltage Electrical section 7.1.1.1 concerning the use of printed circuit assemblies on low voltage electrical systems, questioning whether the requirement that certain printed circuit assemblies qualify under Classification 1.4.1 as class 3 for "Life Support or Other Critical Assemblies" would also be an applicable requirement for line voltage electrical systems. The Committee decided to defer this consideration until review of the document during the ROP phase.

CHAPTER 8 – LINE VOLTAGE ELECTRICAL SYSTEMS

Discussion of sections dealing with line voltage supplied from an external source, current stability, conformance with existing electrical codes, grounding and bonding.

MOTION by Mr. Wilde to remove section 8.3.1.3 (requires that only bare wires be used for equipment grounding conductors) from the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

Discussion of sections dealing with ground fault circuit interruption.

MOTION by Mr. Wilde to remove the annex materials A8.2.3 (stationary utility power circuits supplying ambulance line voltage power should incorporate ground fault protection) from the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

Discussion of sections dealing with interior equipment grounding, power source ratings, generator instrumentation and operation.

MOTION by Mr. Holzapfel to modify section 8.5.9.1 to provide that generator drive system controls & switches be within the convenient reach of an equipment operator.

VOTE: MOTION CARRIES

Discussion of sections dealing with PTO generators, hydraulic generators, and auxiliary-engine generators.

MOTION by Chief Frazier to modify section 8.6.3.9.2 to provide that the exhaust system for the generator comply with section 5.6 of the draft document relating to exhaust systems.

VOTE: MOTION CARRIES

MOTION by Chief Frazier to modify annex section A8.6.5 to include information that static power inverters and some dynamic power inverters are also designed to provide electric power while the ambulance is in motion.

VOTE: MOTION CARRIES

Discussion of sections dealing with line voltage supplied from the low voltage system, power sources requiring elevated engine speed, portable generator installation & wiring.

MOTION by Chief Frazier to modify section 8.7.1 to provide that portable generators that can be operated while mounted on the ambulance shall be installed in a location that directs the exhaust and heat at least 12 inches away from the fuel fill, oxygen system, entry doors and ventilation inlets.

VOTE: MOTION CARRIES

MOTION by Mr. Alger to modify section 5.6 (chassis exhaust systems) to provide that a tailpipe outlet shall not terminate less than 12 inches away from the fuel fill, oxygen system, entry doors and ventilation inlets.

VOTE: MOTION CARRIES

0955 Morning break.

Discussion of sections dealing with transfer switches, power supply assemblies, overcurrent and power source protection, panelboards, wiring methods, flexible cord installations, wiring system components, receptacles and inlet devices, cord reels, scene lighting systems, appliance accessibility and fastening.

MOTION by Mr. Lackore to accept the contents of proposed Chapter 8, as modified, into the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

CHAPTER 9 – TEST METHODS

Discussion of sections dealing with ambulance body structure test, body door test, oxygen tank retention system static test, patient cot retention system static test, and low voltage electrical system test.

MOTION by Mr. Alger to remove section 9.5.2 (requires that low voltage electrical system test be conducted when the air temperature is between 0°F - 120°F) from the initial draft document for NFPA 1917.

VOTE: MOTION CARRIES

MOTION by Mr. Wilde to modify section 7.6.2.1 of the draft document such that a reserve capacity compliance test be performed and verified on each ambulance prior to delivery using the minimum continuous load as set forth in section 7.4.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to modify section 7.4.1 of the draft document such that the minimum continuous load requirement would also include the total amperage necessary to operate all lighting devices necessary to illuminate walking surfaces at entry points and 50% of the of the total compartment light loads otherwise required by this standard.

VOTE: MOTION CARRIES

Discussion of sections dealing with patient compartment sound level test, and patient compartment carbon monoxide level test. Discussion noting that CO continuous monitoring equipment has now been added as a requirement elsewhere in the draft standard, and that the presence of such equipment render additional CO testing unnecessary.

MOTION by Mr. Alger to delete section 9.7 from the draft document given that continuous CO monitoring devices are mandated elsewhere in the standard.

VOTE: MOTION CARRIES

Discussion of sections dealing with the handrail static load test, and line voltage electrical system test.

MOTION by Mr. Lackore to delete section 9.9.2 (dielectric voltage withstand test) from the draft document, given that GFCIs and polarity tests are mandated elsewhere in the standard to address this potential problem.

VOTE: MOTION CARRIES

MOTION by Mr. Cole to delete section 9.9.7.2 (third-party certification requirement for power source load testing) from the draft document.

VOTE: MOTION FAILS

MOTION by Mr. Holzapfel to modify section 9.9.7.2 (third-party certification requirement for power source load testing) to require third-party certification only for power sources of greater than 3kw.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to modify section 9.9.7.1 to require that a manufacturer perform power source certification testing for each power source on the vehicle.

VOTE: MOTION CARRIES

Discussion of sections dealing with water leak test.

MOTION by Mr. Lackore to modify section 9.10 by adding a requirement that at the conclusion of the water leak test, all exterior lights and compartments should be examined for leakage.

VOTE: MOTION CARRIES

MOTION by Mr. Wilde to remove section 9.9.7.3.9 (manner for testing continuous electrical loads) from the draft document.

VOTE: MOTION CARRIES

MOTION by Chief Frazeur to delete section 9.10.2 (requirement that water leak test be conducted after the road test) from the draft document because the road test requirement has been eliminated.

VOTE: MOTION CARRIES

Discussion of sections dealing with equipment temperature test, interior climate control system test, engine cooling system test, and main oxygen system test.

MOTION by Mr. Lackore to add section 9.15.2.6 containing a requirement that oxygen system electrical continuity and grounding be included among the required oxygen system tests.

VOTE: MOTION CARRIES

Discussion of sections dealing with patient compartment lighting level test, ambulance road test.

MOTION by Chief Frazeur to delete section 9.17 (vehicle road test procedure) from the draft document.

VOTE: MOTION CARRIES

MOTION by Mr. Lackore to delete section 4.17 (vehicle road test requirement) from the draft document because the road test requirement has been eliminated.

VOTE: MOTION CARRIES