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Vice President & Chief Engineer

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Sarah L. McEntee
Executive Director
Commission on Accreditation of Ambulance Services
1926 Waukegan Road, Suite 300
Glenview, IL 60025-1770

Dear Sarah,

On behalf of the National Fire Protection Association (NFPA), I am submitting the following public comment the Ground Vehicle Standard for Ambulances (GVS 2015) as advertised on May 9, 2015. It should be noted that to date NFPA has received no response to our submitted public comment dated November 30, 2014. Since we have received no response I will start by restating our previous comment.

Please be aware that the scope of GVS 2015 is duplicative of the scope and content of NFPA 1917, Standard for Automotive Ambulances. As has been stated previously, NFPA 1917, published in 2013, is the existing American National Standard addressing this topic and GVS 2015 will be a second standard on the same topic, presenting conflicting recommendations and creating confusion among the ambulance user community. CAAS should not publish a duplicative standard and instead participate in the process for NFPA 1917.

NFPA is accredited by the American National Standards Institute (ANSI) as a voluntary consensus standards body and strictly adheres to the ANSI Essential Requirements of maintaining an open and transparent processes that represents all interested parties. To date, through June 30th, 2015 there has been no response to my invitations to CAAS to participate in our process and participate in the development of NFPA 1917. Work on the 2016 edition of this American National Standard is nearing completion and will be presented to the NFPA Standards Council for issuance on August 20th, 2015.

In addition, upon further review of the latest draft, there are several areas within the draft of the GVS v. 1.0 that are either specifically duplicative of conflicting with what is in NFPA 1917. Below are some examples of areas that are duplicative between NFPA 1917 and GVS v. 1.0.

NFPA 1917 section 4.11.5 states:
4.11.5 The vehicle shall be capable of three fordings without water entering patient and equipment compartments while being driven through a minimum of 8 in. (203 mm) of water, at speeds of 5 mph (8 km/hr), for a distance of at least 100 ft (30 m).

GVS v.1.0 section C.4.7 states:
C.4.7 FORDING
The vehicle shall be capable of three fordings, without water entering patient and equipment compartments while being driven through a minimum of 8" of water, at speeds of 5 mph, for a distance of at least 100', in accordance with AMD Standard 017 (Road Test).

NFPA 1917 section 7.9.17.3 states:
7.9.17.3 Photometric, Chromaticity, and Physical Requirements.
7.9.17.3.1 Each emergency light shall flash 75 to 125 times per minute.
7.9.17.3.2 The chromaticity values of the lights shall conform to SAE J578, Color Specification, for their respective colors, except for the red lights, which can conform to the expanded boundary limits of y = 0.34, y = 0.32, and x = 0.62.
7.9.17.3.3 All warning lights shall project a beam spread of at least 5 degrees up and 5 degrees down and at least 45 degrees left and right of horizontal and vertical (H-V).
7.9.17.3.4 Each light shall produce flash energy, measured in candelas per second (Cd-s), from the H-V to all the extreme test point coordinates and shall be tested at all 5-degree increments.
7.9.17.3.4.1 At no point shall the Cd-s values drop to less than the minimum values as shown in Figure 7.9.17.2.1 when tested at 14.2 volts.
7.9.17.3.4.2 Flash energy shall be determined in accordance with the SAE J845, Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles, method for determining the flash energy of a light.
7.9.17.3.5 Testing shall be conducted on the device(s) as manufactured, including use of the actual light source and all other related system components.

GVS .v.1.0 section C.8.2.2 states:
C.8.2.2 PHOTOMETRIC, CHROMATICITY, AND PHYSICAL REQUIREMENTS
Each emergency light shall flash 75 to 125 times per minute. The chromaticity values of the lights shall conform to SAE J578, for their respective color, except for the red lights, which may conform to the following expanded boundary limits of: y =0.34; y = 0.32; x = 0.62. All warning lights shall project a beam spread of at least 5° up and 5° down and at least 45° left and right of H-V. Each light shall produce flash energy, (Cd-s) per flash, measured from the H-V to all the extreme test point coordinates and shall be tested at all 5° increments. At no point shall the Cd-s values drop to less than the minimum values as shown in Table 1 (above) when tested at 14.2 volts. Flash energy shall be determined in accordance with the SAE J845 method for determining the flash energy of a light. Testing shall be conducted on the device(s) as manufactured including use of the actual light source and all other related system components.

Below are some examples of potentially conflicting requirements between NFPA 1917 and GVS .v.1.0.

NFPA 1917 section 7.1.1.2 states:
7.1.1.2 Printed circuit assemblies provided shall qualify under IPC A-610D, "Acceptability of Electronic Assemblies," Classification 1.4.1 as Class 2 "For Commercial and Industrial Assemblies" or better.
GVS .v.1.0 section C.7.2.2 states:
C.7.2.2 AMBULANCE CONVERSION ELECTRICAL SYSTEM – PRINTED CIRCUIT BOARDS
Printed circuit boards, which control the ambulance conversion, and installed by the FSAM, shall meet or demonstrate quality, durability and reliability performances equivalent to those specified in IPC-A-610E, Classification 1.4.1 as Class 3 "Life support or other critical Assemblies".

NFPA 1917 section 7.2.2.2 states:
7.2.2.2 The overall covering of conductors shall be moisture-resistant loom or braid that has a minimum continuous rating of 194°F (90°C) except where good engineering practice dictates special consideration for loom installations exposed to higher temperatures.
GVS v.1.0 section C.7.2 (6) states:
C.7.2 WIRING INSTALLATION
6. Wiring shall be routed in conduit or high temperature looms with a rating of 300°F.

NFPA 1917 section 7.11.6.3.4.2 states:
7.11.6.3.4.2* In the high setting, the primary cot shall be provided with a minimum of 35 fc of illumination, measured on at least 90 percent of the cot's surface area.

GVS .v.1.0 section C.8.4.1 states:
C.8.4.1 PATIENT COMPARTMENT ILLUMINATION
The patient compartment floor shall not be less than 15-foot candles intensity, measured along the centerline of the clear floor. The primary cot shall be provided with a minimum of 50-foot candles of illumination measured on at least 90% of the cot's surface area. The patient compartment illumination shall conform to AMD Standard 016 (Patient Compartment Lighting Level Test).

NFPA has a long and credible history of involvement with the first responder community, including emergency medical services. We are deeply committed to the safety of America's first responders and will continue to develop quality Standards that enhance responder safety. I again urge CAAS to reconsider its decision to publish a duplicative Standard and participate in the development of future editions of NFPA 1917, the existing American National Standard which covers the same ground ambulance vehicles as your proposed document.

Sincerely,

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Cc: Ken Willette, Division Manager
Ken Holland, Senior Emergency Services Specialist
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