

**State of Minnesota**  
**Emergency Medical Services Regulatory Board**  
**Board Ambulance Standards Ad-Hoc Work Group Meeting**

*Monday May 16, 2016 – 10:00am*  
*EMSRB Offices – 3<sup>rd</sup> Floor – Suite 310*  
[Directions & Parking](#)

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**Agenda**

1. **Call to Order – (10:00 a.m.) – Pat Coyne, Ad-Hoc Work Group Chair**
2. **Approve Agenda – Patrick Coyne, Work Group Chair**  
[Motion: To approve the agenda for the May 16, 2016 Ambulance Standards Ad-Hoc Work Group meeting]
3. **Approve Meeting Notes from April 25, 2016 meeting (attached)**  
[Motion: To approve meeting notes from April 25, 2016 Work Group meeting]
4. **Chairs Comments**
5. **Discussion on CAAS GVS v1 Standard**
  - Review of CAAS GVS v1 document provided by Fred Pawelk (*attached*)
  - Additional work group questions or concerns, limitations or exemptions that may be needed for Minnesota
6. **Other Work Group Business**
7. **Next Meeting**
8. **Adjourn Meeting**  
Motion: To adjourn

**Note:** *Some work group members may be attending this meeting through an on-line meeting tool called LYNC or by conference call. In accordance with Minn. Stat. § 13D.015, subdivision 4, the public portion of this meeting, therefore, may be monitored by the public remotely. If you wish to attend by LYNC or conference call, please contact Robert Norlen by email at [robert.norlen@state.mn.us](mailto:robert.norlen@state.mn.us) for connection information. Please make contact for LYNC or conference call information no later than 2:00 p.m. on Friday, May 13, 2016 to ensure a response in time to connect to the meeting.*

*The public may also attend this meeting in person at the location identified at the top of the agenda.*

*If you plan to attend the meeting and need accommodations for a disability, please contact Melody Nagy at (651) 201-2802. In accordance with the Minnesota Open Meeting Law and the Internal Operating Procedures of the Emergency Medical Services Regulatory Board, this meeting notice was posted at: <http://www.emsrb.state.mn.us>*

**State of Minnesota**  
**Emergency Medical Services Regulatory Board**

**Board Ambulance Standards Ad-Hoc Work Group Meeting**

*Monday April 25, 2016 – 10:00am*

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**Meeting Notes**

Attendance: Pat Coyne, , Chad Dotzler, Joe Kounkel, Fred Pawelk, Kjelsey Polzin, Jeff Czysen, Matt Will (Phone), Tom Frost (Phone), Tony Spector, Bob Norlen

**1. Call to Order**

Pat Coyne, Work Group Chair called the meeting to order at 10:07am and began the meeting with introductions.

**2. Approve Agenda**

Agenda was approved by consensus of the Work Group members.

**3. Approve Meeting Notes from March 21, 2016 Meeting**

Meeting notes from March 21, 2016 meeting where approved by consensus of the Work Group members.

**4. Chairs Comments**

None

**5. Update on Ambulance Standards Discussion at NASEMSO Meeting**

- Infant and Child Transport Safety Discussion

Ms. Polzin provided an overview of information that was provided at the NASEMSO (National Association of State Emergency Medical Services Officials). There was specific session on regarding research and development of safety standards for children being transported in ambulances. Ms. Polzin stated the session was very informative, and indicated there is more work being done by various research and testing groups to come up with standards language that could be adopted. The session had three separate presentations done by [Dr. Marilyn Bull \(Riley Hospital for Children\)](#); [Jim Green \(NIOSH\)](#) and [Dan Sjoquist \(Serenity Safety Products\)](#). Ms. Polzin encouraged the work group to view each of their presentations. Note: click on each name to view the presentation.

Mr. Norlen reported on two sessions he attended at NASEMSO regarding ambulance standards discussion with state officials from across the country. The first presentation was from an ambulance vendor perspective on having multiple standards, cost associated with ambulance manufacturing and testing and different standards that don't overlap. This session was done by [David Cole \(Medix Specialty Vehicles\)](#) and [Randy Hanson \(AEV\)](#). A second panel discussion on ambulance standards was moderated by Michael Berg (State of Virginia and Chair of the NASEMSO Ambulance Standards Committee) with panel members James Green (NIOSH), Mark Van Arnam (CAAS), Jennifer Marshall (NIST), John McDonald (GSA) and Kendall Holland (NFPA). Each of the panel members gave an overview of their role with ambulance standards development, the reasons for standards the importance of states adopting standards from a patient and crew safety and industry safety standpoint. When the floor was opened up for questions from the state officials, most of the discussion revolved around why one standard was better than another and states are looking for direction on which standard should be used. A number of states indicated they would not pick a standard for implementation in their state and would leave it up to the ambulance manufactures to build to a recognized standard. The main take away was the current standards (GSA KKK-A-1822, NFPA 1917, and CAAS GVS) do or will include the Society of Automotive Engineers (SAE) safety testing standards for ground ambulances, which are the most important aspects of all of the standards. There was also a question to John McDonald on when the GSA KKK-A-1822 standard would sunset. Mr. McDonald indicated the GSA KKK-A-1822 would be in effect until there was consensus on another ambulance manufacturing standard that the Federal government could use as the standard for ambulances manufactured for the federal government.

**6. CAAS GVS v 1.0 – Standard Effective July 1, 2016**

Document was provided to the work group indicating the CAAS GVS v1.0 will accepted as an ANSI approved ambulance standard effective July 1, 2016.

**7. GSA-KKK-A-1822F Change Notice 9 Draft**

Document provided to the work group indicating the GSA-KKK-A-1822F will be added related to SAE Standards and Recommended Practices for ambulance equipment mounts.

**8. Discussion of the merits and/or concerns about either standard (CAAS or NFPA 1917)**

The work group had discussion on pros and cons of the CAAS or NFPA standards, the impact on Minnesota EMS providers, regulation of ambulance services regarding a set standard and impact on the ambulance vendors in Minnesota. After significant discussion the following motion was made by Work Group member Jeff Czyson:

**Motion to:** *Recommend Minnesota adopts current Commission on Accreditation of Ambulance Services (CAAS) Ground Vehicle Standard (GVS) for newly contracted ambulance construction effective <date to be determined>.* Motion seconded by Joe Kounkel. Motion passed by consensus of the Work Group.

**9. Discussion on recommendation to the Board**

The passing of this motion turned the discussion to a formal recommendation to the Board. Mr. Coyne noted that the work group still had time to develop a recommendation to the Board, our timeline is given is until September 2016. This will give the Work Group time to further review the CAAS GVS standard to determine if exceptions or limitation to the standard need to be part of the recommendation. Question was raised about necessary statute or rule changes, Mr. Spector gave an overview of the process for either needed changes to statute and/or rule and indicated staff would work on developing language for the changes that may be needed based on the final recommendation for the Board.

Mr. Pawelk distributed a document that he had been working on with specific questions related to the CAAS Standard. Mr. Coyne recommended that the Work Group members create similar documents with questions or clarifications needed before finalizing the recommendation. Mr. Pawelk will send his document to Mr. Norlen for distribution to the Work Group for discussion at the next meeting. Other items brought up that may need to be addressed by the Work Group for recommendation to the Board include ambulance maintenance standards and ambulance operational standards related to fatigue and other behavioral focus for safe ambulance operation.

**10. Other Committee Business**

None noted.

**11. Next Meeting**

Monday May 16, 2016 – 10:00am EMSRB Office

**12. Adjourn Meeting**

Meeting adjourned by Work Group consensus at 12:00noon

## EMSRB Work Group

### Items I think we need to address.

1. Section C.4.8.3 Floor Height 34". Stryker PowerLoad spec sheet advertises up to 36". Ferno Inx advertises up to 36". If cots can operate with a higher floor height, there shouldn't be limitations. This may allow a service to use a Type I without an additional suspension system that dumps.
2. Payload 1,300#. Minimum number of people is three – seated positions up to 8 - that equals 513 to 1,368. Average amount of equipment averages 1,000#. My feeling is that 1,300 may be light. Old KKK used to be 1,700. I would also say there should be minimum payload requirements for front and rear axles. Keep in mind the KKK standard I refer to is weighed to KKK spec and does not include added options. The CAAS standard requires as built curb weights which reflect actual conditions of the specific vehicle and are an improvement over the KKK. The industry as a whole is allowing the end customer to exceed chassis GVW by having this many seating positions. Keep in mind the average weight of equipment installed in the vehicle is around 1,000 pounds with the cot, oxygen tanks, etc...
3. C.7.1.1.3 – Master battery switch – indicator light? Ford no longer allows a battery disconnect switch per QVM (Qualified Vehicle Modifier) guidelines. Most current ambulances built do not have Master battery switches. We now use an ignition source tied to a disconnect solenoid that disconnects the FSAM (Final Stage Ambulance Manufacturer) added electrical system.
4. C.7.2.1.2 – There should be a minimum dimension for the service loop. This should be defined by length or number of terminal changes.
5. C.7.2.1.7 – I assume non-disposable eliminates use of fuses. Does this apply then to communication equipment installed in the ambulance that frequently uses fuses.
6. C.7.4.1 – Not all high idle systems sometimes have switches. Some are activated by the cruise control switch(es) and some are controlled automatically by the level of the voltage and amperage draw, which activates a higher rpm when certain parameters are met.
7. C.8.2. Primary/secondary mode? Is this necessary? Primary/secondary mode switching was designed around the use of the KKK specification required colored lights in the required locations. Thought process is when a person saw a vehicle flashing in a certain pattern the person could recognize if the ambulance was moving or stationary. Primary mode flash pattern is for moving and secondary mode flash pattern is for stationary ambulances. I would venture to guess that almost 100% or at least a vast majority of services do not use the KKK specified lights in the colors and locations referred to in the document and do not use a flash pattern referred to in the document. This means most all ambulances use different colored lights in different locations and different numbers with different flash patterns that the general public can not recognize a difference between a primary or secondary mode.
8. Page 23 Table 1 – Light colors – eliminate the parts of this table that reference light color. If blue lights (or green or other colors) are allowed in only certain locations, this is the place to include any references to DOT laws governing this or limitations on light colors and/or locations.

9. C.8.4.1 Why not a single blue dome light? I understand the fear of a patient looking cyanotic under a blue light, but some customers may want a single blue light as a work light at night.
10. C.9.6 – Any reason we have to specify chrome front bumper? This would eliminate aftermarket Herd and Ali-arc (and other manufacturers) bumpers which are popular in the deer country. This would also eliminate bumpers painted to match the body or bumpers with reflective material, especially when we get to the medium duty chassis. Ford even offers an ambulance prep package in the E series that can be ordered with a black bumper. Ford Type II Transit front bumpers are a black plastic.
11. C.10.2 – Why not a camera and intercom if the customer doesn't want a pass through or walk through? Arguably a camera and intercom is more efficient than window and safer for driver. There are emergency vehicle combinations that combine other functions like fire suppression or rescue with an ambulance that this section would eliminate. If a customer wanted a taller transverse forward compartment, this section would eliminate that option.
12. C.10.6 - Why a need for drip rails around perimeter of roof? Minimum over doorways should be sufficient. As a dealer we sell more rub rails, fender flare, bumper ends, drip rails and other exterior protruding items due to damage while driving. The reason for drip rails is to keep water from getting on the responder and equipment when they open the door(s). A drip rail at the top of the module does little to keep water out on a lower compartment. This is a specification item not a standard.
13. C.10.9 – Maybe an exception for users that want to open doors past 90 degrees or use a strap. Maybe an exception on compartment doors if not entry doors.
14. C.10.9 recommended enhancement – The Standard needs to define better what a Fail Safe device is.
15. C.11.3 Why transparent or lightly tinted? What about roll-up doors? What about nets? Considering nets may be stronger than doors on ALS cabinets. This may also eliminate the Ferno Intrax cabinets.
16. C.11.3.9 – I would suggest we eliminate this. Why only main oxygen? Majority of trucks in MN are not configured this way and carry other things like backboard, splints, etc.. If the concern is fire, I don't know of any documented cases of the O2 compartment fires due to items stored in backboard compartment. Only ones I know of were due to faulty oxygen regulators. If the concern is regulator damage, specify a vertical divider or "L" shaped shelf above it to protect it, but even if it is damaged, really not concern. If the main oxygen cylinder is a concern, why not the portable cylinders and why isn't their storage addressed?
17. C.11.7 – Why locate this "near head of the primary patient"? Shouldn't it be conveniently located next to the primary caregiver's (EMSP) location? This again is a specification item, not a standard. The location of the IV hangers should be left to the discretion of the end customer.
18. C.12 – Provisions for liquid O2 should be included in this section.
19. C.12.2 – Include provisions for portable suction systems with charging brackets/holders to use as primary suction. The last sentence "The suction pump shall be located in an area that is accessible and vibration insulated from the patient compartment" eliminates this possibility.
20. C.14.3 – Why centerline of the roof? I would suggest locating antennas off the centerline may be advantageous. This is also a specification and not a standard. Location of antennas should be left to the purchaser

21. C.15.1.3 – Note this will be a departure from tradition. Implications at ER entrances and other venues?
22. C.11.1.1 – Why 3 pounds vs 2 pounds or 4 pounds?

**Curiosities:**

23. C.7.1 – Why dual batteries? C.7.5 Adds a provision for additional batteries, but says as required by OEM. More batteries can be determined by the customer of FSAM?
24. C.7.1.1.2 – Lights on inside the vehicle? Does this mean we need indicator lights for dome lights, fluorescent lights, ACP light, etc...
25. C.9.2.1 – Is there a reason forward hinged doors are better than any other for the cab? Not that this matters, but I found it interesting. What if the next great chassis comes with gullwing doors
26. C.10.4.3 – Why 60"? Just curious.
27. C.10.4. Recommended enhancement – I recommend no reference to the 12" of walkway. If our purpose is to keep people safer, the closer we can get items to the attendant, including the patient the less likely the need for the provider to be unbuckled. If there is documented safety data that can support 12" I would like to see it. I think it is just a random number someone chose and provides no better patient care than if you had 13" or 11"
28. C.11.1 – why not compartments under the floor with access from interior?
29. C.11.2 Don't know why we need to specify liners.
30. Page 43 Figure 2 – Why is the CAAS document referencing KKK payload minimum when the CAAS document has already set 1,300# as the payload requirement?
31. Considerations for Change 9 coming out in July