

## EXECUTIVE SUMMARY

# Understanding the SAE Conversation

In the summer of 2014, the Society of Automotive Engineers (SAE) released “recommended practices” for testing the crash worthiness of litters, or cots (SAE J3027) and ambulance equipment (SAE J3043). Development of these standards was federally funded and scientifically validated by industry and federal partners, including members of NIOSH, NIST, and DHS. **These practices prescribe the design parameters that must be met for patients and occupants of an ambulance to survive a 30 MPH vehicle crash (30 MPH change in velocity), or the equivalent of a 22.5g forward impact, and 26g side impact.**

In the 1970’s the federal government, through the GSA, created the purchasing specification KKK-A1822 (often referred to as “the Triple-K”). Over time many states adopted all or part of this specification to regulate ambulances and ambulance equipment in their state.

Two competing standards have been created as alternatives to KKK. These are the NFPA 1917 standard, and the CAAS GVS v1.0 standard. Each of these standards reference SAE’s recommended practices and will place a new set of requirements on ambulance cots and equipment once they are accepted (anticipated 2016). An updated version of KKK released on July 1, 2015 may also reference the SAE requirements (KKK-A1822-F, Change Notice 8).

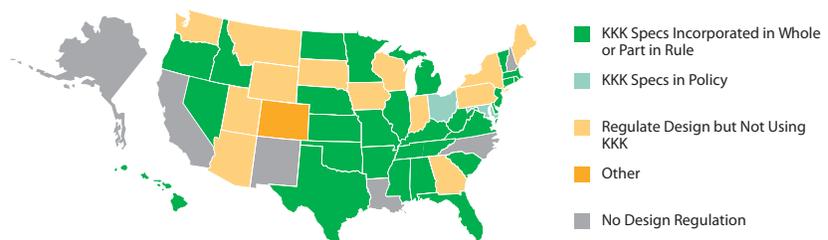
Your state may choose to reference one of these standards in full or in part, or none at all. **If one is referenced by your state, the SAE requirements will apply, and you will be required to include an SAE compliant cot, fastener, and equipment mounts in new**

**ambulance builds** (remounts will not be required to comply). 30 states currently follow KKK-A1822 in whole or in part. Other states have their own regulations or have no “official” regulations. This may give some indication of how each state will choose to adopt NFPA 1917, CAAS GVS v1.0, or the updated version of

**no longer be compliant for use in new ambulances contracted for purchase after July 1, 2015** (based on SAE compliance). Ferno provides a range of SAE J3027 compliant cot and fastener solutions and price points to help agencies comply. These options include the 35X PROFlexx® and POWERFlexx+® with Stat Trac® Cot Fastener System, and the iN|X™ with iN|Line™ Fastener System.

The SAE requirements also mean the existing equipment mounting systems of current ambulances may not meet the new standards. The new Ferno iN|Traxx™ Integrated Vehicle Component System provides SAE J3043 compliant options for securing equipment and supplies.

## Current Incorporation of GSA KKK Specifications by State



CURRENT STATE ALIGNMENT TO TRIPLE-K SPECIFICATIONS GIVES SOME INDICATION OF HOW EACH STATE MAY CHOOSE TO ADOPT NFPA 1917, CAAS GVS V1.0, OR KKK UPDATES AND ULTIMATELY REFERENCE THE SAE REQUIREMENTS. (SOURCE: NASEMSO).

KKK. Note that agencies receiving Assistance to Firefighters Grant (AFG) funds for equipment purchases will have to comply with published standards regardless of your state’s position.

The practical effect of this conversation is that **the traditional “antler and rail” cot fastener system will**

For more information on these requirements and standards you can watch a presentation from EMS World Expo featuring NASEMSO Executive Director Dia Gainor, and NIOSH Safety Engineer Jim Green at [www.emsworld.com/article/12030641/new-ambulance-crash-requirements-will-enhance-provider-patient-safety](http://www.emsworld.com/article/12030641/new-ambulance-crash-requirements-will-enhance-provider-patient-safety).