

CIT/G101619/JMA

Geneva, 26 October 2011

## **IRU POSITION ON FIRE MITIGATION IN VEHICLES**

*unanimously adopted by the IRU International Commission on  
Technical Affairs (CIT) on 6 September 2011 in Helsinki*

### **Approved IRU Position on fire mitigation in vehicles.**

#### **I. ANALYSIS**

The professional sector of bus and coach operators and legislators is becoming increasingly concerned with the fire risks of coaches and buses.

Different ignition sources are possible in many forms in vehicles and the most common ones are an open flame, a sustained duration spark and auto-ignition. Coaches and buses are complex vehicles and a fire can occur for a variety of reasons, not only while in motion but also in a stationary situation with the engine on or off. Three elements are needed to create a fire: an ignition source, air and a combustible material. If any one of these three elements is not present, a fire cannot occur despite the presence of the other two.

At the UNECE Working Party on General Safety Provisions (GRSG) there are continuous proposals in order to improve the requirements for protection against such risks. Some delegates at the GRSG mentioned ongoing research and suggested that it would be a better idea to consider other solutions before making a decision.

Through the initiatives of the GRSG experts several safety measures against fire have been approved during the years 2010/2011.

Delegates, for instance, approved detection systems such as a fire detection system and smoke or heat detection system which would detect spontaneous fires in engine compartments and interior compartments respectively. They also approved a cable test, a repel test for insulation materials and the burning behaviour of materials.

Several fire investigations were made and the main findings brings to the attention of all stakeholders in the transport of passengers by coach or bus and even for truck operators, that existing methods exist and can reduce the risk of vehicle fire.

In several countries, voluntary agreements exist, through the commitment of bus and coach manufacturers, to install fire detection systems in engine compartments and smoke detection systems in the toilets and driver sleeping compartments of new buses and coaches.

#### **II. IRU POSITION**

The IRU Secretariat General has decided, based on the fast voluntary implementation of fire mitigation systems, to support any initiative that can help diminish fire, as it is in line with the IRU 3 "i" strategy as the most cost-effective way to achieve sustainable development, based on Innovation, Incentives and Infrastructure:

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- Innovation – develop ever more effective “at-source” technical measures and operating practices to reduce environmental impact.
- Incentives – encourage faster introduction by transport operators of best available technologies and practices.
- Infrastructure – ensure free-flowing traffic through adequate investment in new infrastructure, to remove bottlenecks and missing links and make full use of existing infrastructure.

The IRU supports any measure that effectively reduces road accidents by targeting their main cause.

The IRU and its Members are in favour of at source installation of fire detection systems and smoke detection systems in engine compartments and interior compartments respectively.

Periodical vehicle inspections can mitigate fire risks and mechanical problems and would promote an improved level of safety and compliance in the road transport sector.

Correct maintenance of all mechanical components of coaches and buses can considerably diminish any risk of fire.

The pre/post trip inspection list provided by the IRU checklist against fire can prevent coach and bus fires. The checklist should be carefully communicated to all drivers and disseminated to all concerned bodies of the passenger transport sector.

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