



Informal document **GRSG-105-32**
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Fire suppression systems in the engine and heater compartments

Proposal for amendment to UN Regulation No. 107

The problem:



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- About 10 % of all buses and coaches in Sweden are involved in a fire incident during their lifespan.
- 350 – 400 bus and coach fires are reported in Germany every year.
- The number of bus and coach fires in Finland has almost doubled over the last ten years.
- The risks with CNG.

Statistics show that a significant number of fires start in the engine or heater compartment.

The proposal:

- An annex with requirements for type approval of suppression systems is inserted. The system's ability to extinguish fires in the environment of an engine compartment shall be tested.
- Administrative provisions for type approval are added.
- Annex 3 is supplemented with installation requirements. Buses and coaches with an internal combustion engine located to the rear of the driver's compartment shall be equipped with a fire suppression system.

The benefit:

- + Reduced risk for passengers, drivers and other persons
- + Reduced costs for the society (the bus, infrastructure, buildings etc.)
- + Less risk for negative publicity for the public transport – a bus fire is spectacular.

Estimated costs:

- Engine mockup (*technical service*): 12 – 17.000 €
- Test cost (*system manufacturer*): maximum 17.000 € for each type.
- Suppression system (*vehicle manufacturer*): around 1.100 € for each vehicle, installation excluded.