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Working Party on General Safety Provisions (GRSG)  
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agenda item 3.3.)

PROPOSAL FOR A NEW DRAFT REGULATION WITH REGARD THE TYPE APPROVAL  
OF A HEATING SYSTEM AND OF A VEHICLE WITH REGARD TO ITS HEATING SYSTEM

Transmitted by the expert from the International Organization of Motor Vehicle Manufacturers  
(OICA)

Note: The text reproduced below was transmitted by the expert from OICA as presented at the eighty-seventh session of GRSG (TRANS/WP.29/GRSG/66, para. 47). It contains a proposal for LPG combustion heaters to be included into the draft Regulation (TRANS/WP.29/2004/22 and Corr.1).

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Note: This document is distributed to the experts on General Safety Provisions only.

Insert the following Annex 8

"Annex 8

**SAFETY REQUIRMENTS FOR LPG COMBUSTION HEATERS AND LPG HEATING SYSTEMS**

1. LPG HEATING SYSTEMS FOR ROAD USE
  - 1.1. If an LPG heating system in a motor vehicle can also be used when the vehicle is in motion, the LPG combustion heater and its supply system shall comply with the following requirements:
    - 1.1.1. The LPG combustion heater shall comply with the requirements of the harmonized standard EN 624:2000 (Specifications for dedicated LPG appliances. Room sealed LPG space heating equipment for installation in vehicles and boats).
    - 1.1.2. In cases of a permanently installed LPG container all components of the system that are in contact with LPG in the liquid phase (all components from the filling unit to the vaporiser/pressure regulator) and the associated liquid phase installation shall comply with the technical requirements of Regulation No 67, Parts I and II and Annexes 3 to 10, 13 and 15 to 17.
    - 1.1.3. The gaseous phase installation of the LPG heating system in a vehicle shall comply with the requirements of the harmonized standard EN 1949:2002. <sup>1/</sup> (Specifications for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and in other road vehicles).
    - 1.1.4. The LPG supply system shall be so designed that the LPG is supplied with the required pressure and in the correct phase for the installed LPG combustion heater. It is permitted to withdraw LPG from the permanently installed LPG container in either gaseous or liquid phase.
    - 1.1.5. The liquid outlet of the permanently installed LPG container to supply LPG to the heater shall be provided with a remotely controlled service valve with excess flow valve as required in paragraph 17.6.1.1. of Regulation No. 67. The remotely controlled service valve with excess flow valve shall be controlled such that it is automatically closed within five seconds of the vehicle engine stopping, irrespective of the position of the ignition switch. If within these five seconds the on-switch of the heater or LPG supply system is activated, the heating system may stay in operation. The heating can always be restarted.

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<sup>1/</sup> Prepared by the European Committee for Standardisation (CEN).  
(<http://www.cenorm.be/CENORM/index.htm>).

- 1.1.6. If the LPG is supplied in the gaseous phase from the permanently installed LPG container or separate portable LPG cylinder(s), appropriate provisions shall be taken to ensure that:
    - 1.1.6.1. no liquid LPG can enter the pressure regulator or LPG combustion heater. A separator may be used and
    - 1.1.6.2. no uncontrolled release due to an accident can occur. Means shall be provided to stop the flow of LPG by installing a device directly after a cylinder or container mounted regulator or if the regulator is mounted remote from the cylinder or container, a device shall be installed directly before the hose or pipe from the cylinder or container and an additional device shall be installed after the regulator.
  - 1.1.7. If the LPG is supplied in liquid phase, the vaporiser and pressure-regulator unit shall be heated as appropriate by a suitable heat source.
  - 1.1.8. In motor vehicles that use LPG in their propulsion system, the LPG combustion heater may be connected to the same permanently installed LPG container that supplies LPG to the engine, provided that the safety requirements of the propulsion system are met. If a separate LPG container is used for heating, this container shall be provided with its own filling unit.
2. LPG HEATING SYSTEMS FOR STATIONARY USE ONLY
- 2.1. The LPG-combustion heater and its supply system of an LPG heating system that is intended to be used only when the vehicle is not in motion, shall comply with the following requirements:
    - 2.1.1. Permanent labels shall be attached on the compartment where the portable LPG cylinders are stored and in close proximity to the control device for the heating system, giving instructions that the LPG heater shall not be in operation and that the valve of the portable LPG cylinder shall be closed when the vehicle is in motion.
    - 2.1.2. The LPG combustion heater shall comply with the requirements of paragraph 1.1.1. above.
    - 2.1.3. The gaseous phase installation of the LPG heating system shall comply with the requirements of paragraph 1.1.3. above."
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