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Note from the International Organization for Standardization (ISO)

ISO Roundtable on global harmonization of regulations, codes and standards for gaseous fuels and vehicles held in Geneva on 10 January 2007,

Note relating the ISO roundtable on global harmonization of regulations, codes and standards for gaseous fuels and vehicles

Transmitted by the representative of ISO

1 Objectives

The ISO roundtable on global harmonization of regulations, codes and standards for gaseous fuels and vehicles was held on 10 January 2007.

The objectives were:

- To identify harmonization issues and needs from the perspective of stakeholders such as: governments, the automotive industry, fuel suppliers, builders of gaseous fuel infrastructures, the United Nations Economic Commission for Europe (UNECE) – Transport and Sustainable Energy Divisions, and associated ISO and IEC technical committees;
- To review the challenges and barriers to global harmonization.
- To identify potential pathways to achieve coherent and effective global harmonization.

2 Results of the meeting

The event was attended by over 70 delegates mainly from industry, research and government with an even split between those involved with natural gas vehicles and those involved with hydrogen vehicles.

In the morning, a number of presentations were given showing the perspectives of the Natural Gas Vehicle Sector and the Hydrogen Vehicle sector. Two presentations were given by the UNECE to give their perspectives on sustainable energy and transport. All presentations can be seen at the URL:

http://www.iso.org/iso/en/commcentre/events/2006/roundtable.html

In the afternoon the delegates split into two groups: one to discuss the automotive point of view and the other to discuss issues related to the infrastructure needed for the Gas Vehicle Sector.

The main result of the discussions was the identification of priority areas for standardization. These areas are listed in the following table1.

Table 1 Summary of priority areas for standardization identified by participants at the ISO Roundtable

H2 and NG fuel *automotive* subjects for considerations

- LNG and dual fuel standards and regulations for vehicles and fuels
- Specification for natural gas hydrogen mixtures and components
- Interchangeable components such as high pressure, low volume fuel containers and interfaces
- Pressure units and temperature references
- Fuel quality and vehicle safety
- Material compatibility for hydrogen operation

Note: examine opportunities for harmonisation of Regulation No. 110 with relevant ISO standards (eg, based on prioritization by relevant ISO TCs)

H2 and NG fuel *infrastructure* subjects for consideration

Safety standards for:

- Fuelling stations
- Cylinders
- Pressure levels
- Periodic inspection
- Fuel quality

3 Further actions

There are areas where ISO is already active and others were some new standardization work will need to be initiated (e.g. concerning Liquefied Natural Gas (LNG) vehicles). This should be done in close coopeation with the Working Party on gas (WP.3) and the World for Harmonization of Vehicle Regulations (WP.29).

Part of the work will be to review and initiate relevant international standardization work.

ISO Technical Committees relevant to the subject of the Roundtable include:

- ISO/TC 22, Road vehicles
- ISO/TC 58, Gas cylinders
- ISO/TC 193, Natural gas
- ISO/TC 197, Hydrogen technologies
- ISO/TC 220, Cryogenic vessels
- ISO TC 28, Petroleum products and lubricants

All interested experts will be invited to join the work

4 Conclusions

Members of the World Forum are invited to take note of the above and submit comments. It is moreover recommended that World Forum members should contact the ISO member body in their country to express views on areas of interest to them.

From the ISO point of view, these activities are to be carried out taking into account important aspects such as:

- energy security
- equipment safety
- environmental aspects (eg greenhouse effect)

The subsequent activities can facilitate research and development concerning the NG and H2 fuels, vehicle technology and can improve the global progress towards sustainable development.

It is moreover wished that this event will contribute strengthening coordination of international standardization work with WP29

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