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(48th GRPE, 1-4 June 2004,
agenda item 12.1.)

United Nations Round Table
Global Harmonization of
Regulations, Codes & Standards (RC&S)
for Gaseous Fuels

Introduction.

As the result of a presentation by the International Association for Natural Gas Vehicles (IANGV) and the European NGV Association (ENGVA) at its meeting in March 2004, WP.29 recognized the importance of harmonization of international standards on gaseous fuels, but was of the opinion that it is not in the scope of Agreements administered by WP.29. WP.29 agreed to consider the possibility of organizing a Round Table on the subject and requested that ENGVA prepare a paper in conjunction with ISO for consideration at the next GRPE session.

WP.29 itself made a decision recently at its 131st session in November 2003 to use only references to international standards in the regulations instead of reproducing them in extenso. This is a positive step in the direction of global harmonization.

Worldwide harmonization already has some strong supporters. At the Evian Summit in June 2003, the G8 recognized the need to accelerate the development of hydrogen and fuel cell technologies and simultaneously to develop international codes and standards. See section 2.4 of attachment 1. Also, at the Global Automotive Industry meeting in September 2002 in Paris, the top executives of leading car manufacturers saw the need to develop a Global Technical Regulation (GTR) for hydrogen vehicles. Further, in October 2003 in Tokyo, these executives met again and agreed to push for harmonization of global safety and environmental standards. See attachments 2 and 3.

It is well recognized that global harmonization of regulations, codes and standards (RC&S) is a key factor in the early introduction of hydrogen and fuel cells technologies into the market. The natural gas vehicle industry already has over 3 million vehicles in the world market and, thus, it already has a nearly completed suite of RC&S. However, the rapid development of the natural gas vehicle industry in the last two decades has resulted in a need to harmonize existing RC&S developed in different countries and by different organizations.

Scope.

The scope of the Round Table will cover global harmonization of RC&S for gaseous fuels, which includes natural gas and hydrogen vehicles for transportation applications.

Participants of the Round Table.

To be effective, the Round Table should comprise of about 25-30 people representing members of WP.29, including NGOs such as International Organization of Motor Vehicle Manufacturers (OICA), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), and Society of Automotive Engineers (SAE); and hi-level executives from infrastructure and automotive organizations currently focused on natural gas, hydrogen and fuel cell activities. Also, expert speakers with broad knowledge of standards organizations, standards and regulations should be invited to present their views on all aspects of harmonization, including process. It is recommended that Mr. Bernard Gauvin, the Chair of GRPE and Vice Chair of WP.29 be invited to chair the Round Table. If this is not possible, an independent facilitator could be invited to help the discussion and output.

Goals.

- Discuss the problem of lack of harmonization. Articulate the need for global harmonization based on actual experience
- Discuss harmonization strategies and agree on a process for advancing harmonization of RC&S for hydrogen and natural gas vehicles along with an action plan that would include milestones such as a standards gap analysis and prioritization of standards issues.
- Prepare a report to WP.29 for their acceptance

This briefing paper was prepared jointly by ENGVA, IANGV, and ISO as an informal document, accompanied by a draft agenda for the United Nations World Forum for Harmonization of Vehicle Regulations (Working Party 29) and its Working Party on Pollution and Energy (GRPE).
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May 5, 2004

United Nations Round Table
Global Harmonization of
Regulations, Codes & Standards (RC&S)
for Gaseous Fuels

CALL FOR MEETING

Meeting date:	To be determined
Time:	To be determined
Location:	To be determined
Meeting room:	To be determined

DRAFT AGENDA

1. Welcome and Introduction of Participants
2. Presentation by experts
3. Discuss the problem
4. Discuss possible strategies for harmonization
5. Action plan
6. Conclusion

Science and Technology for Sustainable Development − a G8 Action Plan

SCIENCE AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT
A G8 ACTION PLAN

We recognise the need, as acknowledged in the World Summit on Sustainable Development (WSSD) Plan of Implementation, to support the development of cleaner, sustainable and more efficient technologies. Co−operative scientific research on transformational technologies offers potential to improve public health by cutting pollution and reduce greenhouse emissions to address the challenge of global climate change. Our countries must optimise the use of natural resources including through recycling.

We will focus our efforts on three areas that present great opportunities for progress: co−ordination of global observation strategies; cleaner, sustainable and more efficient energy use; agricultural sustainability, productivity and biodiversity conservation. In undertaking these activities, we are committed to working co−operatively with other developed countries. We are conscious that, to meet the objectives of the WSSD, developing countries and countries with economies in transition need to build and strengthen their capacity to assimilate and generate knowledge for sustainable development. We reaffirm our commitment made at the WSSD to assist them through international co−operation in enhancing their research capacities.

1. Strengthen international co−operation on global observation

We will:

1.1 Develop close co−ordination of our respective global observation strategies for the next ten years; identify new observations to minimise data gaps;

1.2 Build on existing work to produce reliable data products on atmosphere, land, fresh water, oceans and ecosystems;

1.3 Improve the world−wide reporting and archiving of these data and fill observational gaps of coverage in existing systems;

1.4 Favour interoperability with reciprocal data−sharing;

1.5 Develop an implementation plan to achieve these objectives by next spring's Tokyo ministerial conference.

2. Accelerate the research, development and diffusion of energy technologies

We will:

2.1 Promote energy efficiency of all sources and encourage the

diffusion and uptake of advanced energy efficient technologies, taking pollution reduction into account. Possible measures include standards, public procurement, economic incentives and instruments, information and labelling;
2.2 Promote rapid innovation and market introduction of clean technologies, in both developed and developing countries, including at the Milan Conference of the Parties of the United Nations Framework Convention on Climate Change and beyond, at the International Energy Agency (IEA) and other international fora such as the UN Economic Commission for Europe, the Expert Group on Technology Transfer, etc, finding appropriate methodologies to involve the private sector;
2.3 Support efforts aimed at substantially increasing the share of renewable energy sources in global energy use:
" stimulate fundamental research in renewable energies, such as solar photovoltaics, off−shore wind energy, next generation wind turbines, wave/tidal and geothermal, biomass;
" collaborate on sharing research results, development and deployment of emerging technologies in this area;
" work towards making renewable energy technologies more price competitive;
" participate in the International Conference on Renewable Energies, spring 2004 in Bonn;
2.4 Accelerate the development of fuel cell and hydrogen technologies (power generation, transportation, hydrogen production, storage, distribution, end−use and safety):
" increase international co−operation and exchange of information in pre−competitive research based on the principle of full reciprocity through the IEA and other existing organisations;
" work with industry to remove obstacles to making fuel cell vehicles price competitive, striving to achieve this goal within two decades;
" accelerate developing internationally agreed codes and standards in appropriate existing organisations;
" work together to facilitate the use of hydrogen technologies in our and other markets, including through development of infrastructures;
2.5 Expand significantly the availability of and access to cleaner, more efficient fossil fuel technologies and carbon sequestration systems and pursue joint research and development and expanded international co−operation, including demonstration projects;
2.6 Encourage the Global Environment Fund to include energy efficiency, renewables, cleaner fossil fuel technologies, and sustainable use of energy when setting up its programme;
2.7 Develop codes and standards for next generation vehicles, cleaner diesel and biodiesel, recognising that social needs for fuel quality are diverse among G8 countries;
2.8 In accordance with our national procedures, promote clean and efficient motor vehicles including next generation vehicles;
2.9 Work in consultation with industry to raise energy efficiency of electrical and electronic equipment;
2.10 We take note of the efforts of those G8 members who will continue to use nuclear energy, to develop more advanced technologies that would be safer, more reliable, and more resistant to

diversion and proliferation.
3. Agriculture and biodiversity
We will:
3.1 Promote the conservation and sustainable use of genetic resources for food and agriculture:
" support the International Treaty of Plant Genetic Resources for Food and Agriculture by concluding negotiations over a standard material transfer agreement that facilitates access to plant genetic resources for agricultural research and development and equitable sharing of benefits arising from their use;
" support efforts to ensure funding for genetic resources conservation in the framework of the priorities set up by the Food and Agriculture Organisation Commission on Genetic
Resources;
3.2 Help developing countries improve their agricultural productivity in a sustainable manner:
" support the Consultative Group for International Agricultural Research's vital role in disseminating agricultural research, as well as the Global Forum for Agricultural Research and other regional and national agronomic research organisations and North−South and South−South research partnerships;
" support actions to provide technology suited to local economic social and environmental conditions to the rural poor in developing countries particularly in Africa, including public−private partnerships;
3.3 Promote sustainable agricultural technologies and practices, including the safe use of biotechnologies among interested countries, that contribute to preventing famine, enhancing nutrition, improving productivity, conserving water and other natural resources, reducing the application of chemicals, improving human health and preserving biodiversity;
" participate in the 22−25 June 2003 Agricultural Science and Technology ministerial conference in Sacramento, to implement the commitment from the Rome World Food Summit;
3.4 Use modern technologies such as satellite imaging technologies to help us:
" combat illegal logging;
" promote sustainable forest management;
" promote agricultural biodiversity and conservation.

We will enhance our understanding of resource material flows and continue work on resources productivity indices, notably in the Organisation for Economic Co−operation and Development.
We will discuss various aspects of the global climate change problem at the World Conference on Climate Change (Moscow, September 2003).
We will work in partnership with developing countries and relevant multilateral organisations to facilitate utilisation in developing countries of the results of relevant research and development in these technologies, and so contribute to sustainable development. Trade liberalisation of environmentally friendly products will contribute to this as well.
We will convene senior G8 policy and research officials and their

research institutions to compare and to link programmes and priorities, to involve and assist in more effective planning and potential linkage of future programmes addressing research on global observation, cleaner energy, agriculture and biodiversity. This group should also consider ways to assist developing countries that have their own research programmes in these three areas, inter alia by examining the possibility of opening our research programmes to third countries.

Attachment 2

Global Automotive Industry Meeting

PARIS | 27 September 2002

LEADING AUTO EXECUTIVES ADDRESS GLOBAL ISSUES

PARIS, 27 SEPTEMBER 2002 – The chief executive officers of the world's leading passenger car and light truck manufacturers today met in Paris along with representatives from American, European and Japanese industry associations. Jean-Martin Folz , PSA Peugeot Citroen Chairman of the Managing Board and President of the European Automobile Manufacturers Association (ACEA) hosted the first-ever such forum, which discussed public policy issues for the auto industry. The Alliance of Automobile Manufacturers and Japan Automobile Manufacturers Association also participated.

Attendees agreed that working with governments, consumers and other stakeholders on issues such as safety and the environment was critical. Areas of discussion centered on three main topics:

International Harmonization of Vehicle Regulations

International harmonization of technical regulations for motor vehicles will improve safety, protect the environment, and reduce costs for consumers around the world. Both the membership enlargement of the UN-ECE 1958 Agreement and the entry into force of the new UN-ECE 1998 Agreement gave the United Nations a new impulse for the development of Global Technical Regulations.

Participants agreed that the international automobile industry should strive for the earliest possible establishment of Global Technical Regulations.

Acceptance of Clean Diesel Technology

Market penetration of diesel cars varies greatly from region to region, and depends on many variables, including consumer acceptance, emission regulations, fiscal policies and benefits of fuel economy. Current diesel engines are dramatically more efficient than conventional gasoline engines in terms of both fuel economy and carbon dioxide emissions. Diesel engines also have the potential to meet stringent requirements regarding local emissions.

Participants agreed that the industry needs to communicate the benefits of clean diesel technology to all stakeholders, work with the oil industry to address challenges regarding the widespread availability of high quality diesel fuels, and join forces with other concerned groups to promote the diesel technology and to improve the public understanding of this technology.

Advanced Technology And Improved Fuel Quality

Advanced technology vehicles such as hybrid electrics, clean diesels, fuel cells, hydrogen combustion engines and others are already appearing on the market or are slated for introduction in the next few years. All of these new technologies will address the issues of fuel economy and emissions.

To expedite the market penetration of these vehicles, the participants believe it is essential for the industry to gather support for technical innovation and needed infrastructure, improve the quality of available fuels (particularly sulfur-free fuels), and convince consumers to adopt these vehicles in large numbers.

LIST OF ATTENDANCE

BMW AG: Mr Helmut Panke, Vorsitzender des Vorstandes

DaimlerChrysler: Mr Juergen Schrempp, Vorsitzender des Vorstandes

FIAT Auto: Mr Giancarlo Boschetti, Amministratore Delegato

FORD Motor Company: Mr William Clay Ford Jr, Chairman & CEO

GENERAL MOTORS Corp: Mr G. Richard Wagoner Jr, President & CEO

PSA Peugeot Citroën: Mr Jean-Martin Folz, Président du Directoire

Dr.-Ing. h.c. F. PORSCHE AG: Mr Wendelin Wiedeking, Vorstandsitzender

RENAULT SA: Mr Louis Schweitzer, Président Directeur Général

VOLKSWAGEN AG: Mr Bernd Pischetsrieder, Vorsitzender des Vorstandes

HONDA Motor Co Ltd: Mr Yoshihide Munekuni Chairman

TOYOTA Motor Corporation: Mr Hiroshi Okuda, Chairman

NISSAN Motor Co Ltd: Mr Yoshikazu Hanawa, Chairman

MAZDA Motor Corporation: Mr Lewis W.K. Booth, Representative Director, President & CEO

ALLIANCE: Mrs Josephine S. Cooper, President & CEO

ACEA: Mr Ivan Hodac, Secretary General

JAMA: Mr Takao Suzuki, President

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October 22, 2003
Automakers to push for worldwide safety standards

Wed 22 October, 2003 17:04 BST

TOKYO (Reuters) - Top executives of most of the world's major automakers agreed after a rare joint meeting on Wednesday to push for a harmonization of global safety and environmental standards, company officials said.

Leaders from about 15 automakers, including General Motors, Ford, Toyota and Volkswagen, met following the opening day of the Tokyo Motor Show, the officials said.

Currently, automakers must make expensive changes to vehicles to meet different safety regulations and environmental standards in various markets.

"It would make sense if governments adopted the same standards, so that automakers could build to the same standards around the world," an official with one global automaker said.

The three-hour closed-door meeting comes about 13 months after auto executives met during the Paris auto show to discuss the same issue, which some said was a first in the 100-year history of the industry.

GM Chief Executive Officer Rick Wagoner, asked earlier this week about the likelihood of common safety standards around the world, said "the betting odds of getting that are really mixed."