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## ***Seminar to support international standardization in Asia-Pacific countries***

Last year, the Society of Automotive Engineers of Japan, Inc. (JSAE) sponsored a two-day seminar in Tokyo, on December 2 and 3, for Asia-Pacific countries. The seminar was intended to provide a progress report on ISO/TC22 (Road vehicles) activities to further understanding of and interest in ISO activities among seminar participants, and thereby to encourage them to participate in international standardization activities related to road vehicles on a medium - to long-term basis. JSAE bore travel and accommodation expenses associated with the seminar for the attending country representatives, being subsidized by the Japanese government.

While ISO/TC22 has a number of member countries from the Asia-Pacific region, including South Korea, the Republic of China, the Philippines, and Thailand, no country other than Japan has taken an active role in TC22. The other nations have not actually taken part in international standardization activities. In recent years, South Korea has emerged as the world's fifth-largest automobile producer, and China has begun ramping up domestic production. These trends have aroused interest and encouraged participation in ISO activities. In addition to South Korea and the Republic of China, we have invited standardization organizations and automobile-related research institutes in Thailand, Vietnam, and Indonesia to participate in ISO activities. This was the general backdrop and motivation for the seminar.

A total of 11 individuals attended the seminar: four from South Korea, four from China, one from Thailand, one from Vietnam, and one from Indonesia. These representatives were drawn chiefly from universities, the automobile industry, and standardization organizations.

Twelve Japanese ISO/TC22 experts gave a series of lectures as follows:

- 1) Need to take part in ISO/TC22 standardization activity
- 2) ISO directives
- 3) The current status of TC22 and technical and policy-making issues

Seminar participants asked us to hold other such seminars, though JSAE will ask the national government to grant more subsidies and hopes that the seminars will eventually be hosted by other Asian-Pacific member nations as well as Japan, since such an arrangement would allow a sharper focus on particular issues facing the various localities.

**Hiro Ishimaru**  
JSAE Japan

### **A NEW ISO/TC22 CHAIRPERSON :**

*Under the proposal of the French  
ISO/TC22 Committee Member  
Jean-Pierre Cheynet Director  
of BNA (the French Automotive  
Standardization Organization by  
Delegation from AFNOR has been  
proposed as new Chairman  
of the Technical Committee  
"Road vehicles" (TC22)  
The former Chairman Paul Serre  
moved from CCFA last year after  
3 years as TC22 Chairman.  
Thanks to him and good luck  
in his new activities*

# Mr. Suda's presentation at the 30<sup>th</sup> ISO/TC22 Plenary session

**M**r. Seiji Suda from Hitachi, Ltd., responsible for directing its automobile equipment operations and a standards director at the JSAE, has undertaken the drafting of national and various organizational standards for Japan's automobile industry and standardization activities for international standards ISO.

■ At the opening of the TC22 Plenary Session held in Kyoto in October 2002, Mr. Suda made a presentation, which is summarized below.

■ Japan's standardization activities have contributed to the development of Japanese industry since 1949. There are three priority technological fields in the Japanese automobile industry right now: environment and energy, safety measures, and advanced information systems. Within these fields, the following standardization-associated topics need to be addressed: fuel cells, recycling, and ITS as new topics; and collision safety, hybrid cars, EV, and heavyweight vehicle emission test methods as existing topics.

■ Various standardization activities are conducted by a wide range of related organizations on a voluntary basis, sometimes with funding support from the national government.

■ In addition to auto makers, auto part manufacturers have also joined in technical development efforts in the priority technological fields. All participating businesses are struggling to establish de facto standards ahead of their competitors. To maximize efficiency, they are pouring significant efforts into consolidating products, sharing parts with other firms, and standardizing test and evaluation methods. Currently, more than 1,000 engineers from automobile and related industries and organizations make up more than fifty standards-related committees of the JSAE, adding vigor to committee activities.

■ As an example of a corporate standardization activity, Mr. Suda recounted the achievements and issues that needed to be addressed in the standardization efforts intended to consolidate parts at his company. ■

**Seiji Suda**  
HITACHI Ltd. Japan

## A success story

The revision of the framework European Directive dealing with the European Type approval of the Road Vehicles is going on and will enter into force within the next month.

It is a very important recognition of the ISO/TC22 work to see in the draft the references to the Standards prepared by the working group SC3/WG3 "Electro-magnetic compatibility"

■ ISO11451 parts 1, 2 and 3: "Road vehicles – Vehicle test methods for electrical disturbances from narrow band radiated electromagnetic energy"

■ ISO11452 parts 1, 2, 3 and 4 "Road vehicles – Component test methods for electrical disturbances from narrow band radiated electromagnetic energy"

■ ISO10605 "Road vehicles – Test methods for electrical disturbances from electrostatic discharges"

■ ISO7637 parts 1, 2 and 3 "Road vehicles – Electrical disturbance from conduction and coupling"

Some of these Standards were recently revised in order to be up to date for the introduction into the Directive ■

**Jean-Pierre Cheynet**  
BNA France

## Events of the years 2003/2004

### NEW ACTIVITIES

- ▶ The next plenary meeting of ISO/TC22 "Road vehicles": on 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> May 2004 in ROME (Italy).
- ▶ An agreement signed between ISOTC22 and ISO/TC197 "Hydrogen technologies".
- ▶ Deep discussions with the ISO/TC204 Chairman Martin ROWELL (TC204 ITS) to reach an agreement for a better and more efficient Co-operation.
- ▶ Last September 25 European experts participated in Montlhéry in BNA office to a workshop in evaluating the usability of the child restraint systems fitted in the passenger cars.
- ▶ At its 131<sup>st</sup> session the World Forum for Harmonisation of vehicle Regulations (WP29) approved the recommendation from the administrative committee of using only references to international standards in the Regulations instead of reproducing them in extenso.

## Acceleration of the ISO standards publication process

- ▶ The ISO Technical Management Board introduced some new tracks for the development of the International Standards
  - the normal development time is 3 years;
  - in case of difficulties for getting the consensus 4 years are allowed;
  - in case of an urgent need 2 years is a recommended development time.

# Cleanliness of Diesel injection equipment

Cleanliness of Diesel injection equipment Fuel injection systems are comprised of a number of components. Traditional systems contain low pressure elements (including fuel tank, pipework, filters, lift pump, etc.), a fuel injection pump, high pressure pipes and fuel injectors that are located within the engine cylinder head. Modern Diesel fuel injection systems, which can contain many closely controlled clearances and which rely on the fuel flowing characteristics of small orifices, require close control of sources of contamination in order to maintain the required performance throughout their designed life. To this end Diesel fuel injection systems are designed with integral fuel filtration equipment, to reduce the potentially damaging debris that could enter the system from external sources. Contamination also exists internal to the fuel injection system in use as a result of system use/ wear and servicing of the equipment or as a result of the original supplier's manufacturing and assembly processes. Development of a uniform method for determination of the cleanliness of injection equipment was a challenging work item of TC22/SC7 Injection equipment and filters for use on road vehicles. This work resulted in publication of Standard

## ■ ISO 12345:2002 Diesel engines – Cleanliness assessment of fuel injection equipment

The focus of this International Standard is the assessment of cleanliness of the Diesel fuel injection equipment as originally supplied to the engine manufacturer.

During the creation of this International Standard it was recognised that great care is required in the handling and measurement of contamination samples. The low levels of contaminant that are experienced with fuel injection equipment makes this a particularly

difficult task. For this International Standard to be used meaningfully as an indicator of component cleanliness, and a driver towards higher quality standards, extreme attention to detail is required by the user of this International Standard. This International Standard therefore emphasises in detail the verification requirements for the test equipment used.

It is not always clear what level and type of cleanliness would be beneficial for improved performance and life on a cost effective basis. The actual quantitative levels can only be set in relation to other parameters that should be agreed between the manufacturer, supplier and user. This International Standard provides a set of procedures for evaluating cleanliness of Diesel fuel injection equipment and the framework for a common measurement and reporting system.

Work on cleanliness assessment will be continued by ISO/TC 22/SC 7. Items envisaged for the future are:

Application of ISO 12345 to Common Rail systems, improvements of the reporting scheme.

Recently, vehicle manufacturers have requested the development of a particulate cleanliness assessment method applicable to any type of equipment within a road vehicle (not restricted to injection equipment). A New Work item was adopted by TC22 and assigned to SC5/WG12. This project will be developed in cooperation with SC7 ■

**Walter Sicks**  
FAKRA Germany

## NEXT SUBCOMMITTEE MEETINGS 1<sup>ST</sup> HALF OF 2004

22<sup>ND</sup> JUNE 2004

Berlin, GERMANY

**Ignition equipment (SC1)**

END OF SEPTEMBER 2004

Munich, GERMANY

**Braking systems and Equipment (SC2)**

7<sup>TH</sup> JUNE

ITALY

**Electrical and Electronic equipment (SC3)**

20<sup>TH</sup> OCTOBER

ITALY

**Terms and definitions of dimensions and masses (SC6)**

6<sup>TH</sup> OCTOBER

Rome, ITALY

**Vehicle dynamics and Road-holding ability (SC9)**

14<sup>TH</sup> MAY

Berlin, GERMANY

**Impact test procedures (SC10) and Restraint systems (SC12)**

30<sup>TH</sup> JUNE

Paris, FRANCE

**Ergonomics applicable to road vehicles (SC13)**

11<sup>TH</sup> MAY

SPAIN

**Exterior fittings (SC14)**

29<sup>TH</sup> APRIL

Brussels, BELGIUM

**Electric road vehicles (SC21)**

29<sup>TH</sup>/30<sup>TH</sup> JANUARY

Madrid, SPAIN

**Accessibility of vehicles to physically handicapped (SC26)**

## In addition the following committees will meet:

2<sup>ND</sup> JULY

JAPAN

**Hydrogen Technologies (ISOTC197)**

21<sup>ST</sup> MAY

Vancouver, CANADA

**Intelligent Transportation System (ISO TC204)**

# How well do you know ISO/TC 197?

**ISO/TC 197** is the Technical Committee of the International Organization for Standardization (ISO) on Hydrogen Technologies. ISO/TC 197 was created in 1990 to develop standards in the field of systems and devices for the production, storage, transport, measurement and use of hydrogen.

In 1994, the secretariat of ISO/TC 197 was transferred from Switzerland to the Standards Council of Canada (SCC). Mr. Randy Dey was appointed chair of ISO TC 197 in December of 2002, replacing Professor Tapan Bose. The basic responsibilities of ISO TC Chairmen are described in ISO/IEC Directives.

ISO/TC 197 now counts 17 participating countries (P-members) and 13 observer countries (O-members), in addition to maintaining links with 15 organizations including 12 other ISO technical committees.

Priorities of ISO/TC 197 are driven by the hydrogen technologies in the energy sector that are likely to reach the market in the near term. As the distributed power generation and the road vehicle sectors have been identified as the early market niches, all the standards that are required to allow the smooth introduction of the hydrogen technologies in these sectors of activity are the top priority of ISO/TC 197.

Since the beginning of 2002, ISO/TC 197 has been involved in the ongoing development of regulations for hydrogen road vehicles at the World Forum for Harmonization of Vehicle Regulation (WP.29) of the United Nations Economic Commission for Europe (UN ECE). This work has been achieved by one of the subsidiary bodies of WP.29, the Working Party on Pollution and Energy (GRPE), and its ad hoc group. As part of his responsibilities, Mr. Dey coordinates on behalf of ISO/TC 197 the exchanges and

negotiations with these UN ECE organizations. As most of the exchanges with these UN ECE organizations have been done jointly with ISO/TC 22 Road Vehicles, Mr. Dey works in close collaboration with ISO TC 22.

Mr. Dey is the President of CCS Business Improvement Services, Inc., a consulting firm he established in 1977 to assist companies in their international compliance requirements such as ISO 9000, ISO 14000 and in developing their products to meet CSA, UL, and international standards, including the CE mark.

As well as being the Chairman of ISO/TC 197 and the convener of ISO/TC 197 WG 8 (Hydrogen generators using water electrolysis process) listed above, Mr. Dey is very active in other standards development committees related to hydrogen and fuel cell technologies.

When asked about his vision for ISO/TC 197, Mr. Dey replied he hopes to develop ISO TC 197 into a strong and proactive technical committee through active participation of stakeholders in the hydrogen economy, and to promote global harmonization of hydrogen codes and standards. Mr. Dey also encouraged the hydrogen industry to actively participate in codes & standards as a way to speed up the development of Hydrogen/Fuel Cells/Alternate Fuels technologies.

**Karen Miller**

NATIONAL HYDROGEN ASSOCIATION USA

## SUBCOMMITTEE MEETINGS HELD IN 2<sup>ND</sup> HALF OF 2003

30<sup>th</sup> AND 31<sup>st</sup> OCTOBER 2003

Beaune, FRANCE

**Braking systems and equipments (SC2)**

15<sup>th</sup> DECEMBER 2003

Berlin, GERMANY

**Trailers less than 3500 kg (SC4)**

3<sup>rd</sup> DECEMBER 2003

Madrid, SPAIN

**Engine tests (SC5)**

16<sup>th</sup> OCTOBER 2003

Bologna, ITALY

**Terms and definitions of masses and dimensions (SC6)**

7<sup>th</sup> OCTOBER 2003

New York, USA

**Injection equipments and filters for use on road vehicles (SC7)**

3<sup>rd</sup> DECEMBER 2003

Berlin, GERMANY

**Interchangeability of components of commercial vehicles (SC15)**

10<sup>th</sup> NOVEMBER 2003

Tokyo, JAPAN

**Electric and hybrid vehicles (SC21)**

22<sup>nd</sup> OCTOBER 2003

Tokyo, JAPAN

**Motorcycles (SC22)**

23<sup>rd</sup> OCTOBER 2003

Tokyo, JAPAN

**Mopeds (SC23)**

23<sup>rd</sup> - 25<sup>th</sup> OCTOBER 2003

Cologne, GERMANY

**Wheels (SC19)**

17<sup>th</sup> OCTOBER 2003

Vienna, AUSTRIA

**ITS (ISO/TC204)**

4<sup>th</sup> SEPTEMBER 2003

Grenoble, FRANCE

**Hydrogen technologies**

12<sup>th</sup> SEPTEMBER 2003

Lisbon, PORTUGAL

**Road transport and telematics**

## C O N T A C T

### Chairman of ISO/TC22

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