

# ISO TC 197 Update

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U.S. TAG TC 197

# Scope of TC 197

Standardization in the field of systems and devices for the production, storage, transport, measurement and use of hydrogen

# ISO TC 197 Work Items

- WG 1 Liquid hydrogen -- land vehicle fuel tanks
- WG 2 Tank containers for multimodal transportation of liquid hydrogen
- WG 4 Airport refueling facility
- WG 5 Gaseous hydrogen blends and hydrogen fuel
  - filling station
  - land vehicle filling connectors

## ISO TC 197 Work Items (Cont'd)

- WG 6 Gaseous hydrogen and hydrogen blends - land vehicle fuel tanks
- WG 7 Basic considerations for the safety of hydrogen systems
- WG 8 Hydrogen generators using water electrolysis process

# WG 1 Liquid hydrogen -- land vehicle fuel tanks

- Convener: Canada
- Status: DIS 13985-1
- Input from vehicle manufacturers
- Work with UN ECE WP29 through WP 29 GRPE  
As hoc working group

## WG 2 Tank containers for multimodal transportation of liquid hydrogen

- Convener: Canada
- Status: WI 13986 has been discontinued by the TMB. The work has been continued by TC 220 WG 1
- Relationship between two technical committees is informal. Last meeting was held in November 2001
- TC 220 WG 1 document is based on European harmonized draft *Cryogenic vessels -- design and construction*
- Major sticking point is what pressure vessel code to use
- U.S. voted with major to ask for equal voting rights with TC 220

## WG 4 Airport refueling facility

- Convener: Germany
- Status: DPAS 15594 has been approved as a Publicly Available Specification

## WG 5 Gaseous hydrogen blends and hydrogen fuel -- filling station

- Convener: Canada
- Status: WI 15866 has change of title and scope approved
- Basis for standard: CSA B108 NGV refueling station standard; NFPA 52/50A; prEN 13638
- Next meeting late February or early March 2002 with CD by August 2002

# WG 5 Gaseous hydrogen blends and hydrogen fuel -- land vehicle filling connectors

- Convener: Canada
- Status: WI 17268 looking to develop formal relationship with SAE and adopt connector profiles for 250, 350, 500 and 700 bar
- Issue with proposed design was potential cross connection of worn CNG connectors and hydrogen connectors
- Meeting in late February or early March 2002 with CD by June 2002

# WG 6 Gaseous hydrogen and hydrogen blends - land vehicle fuel tanks

- Convener: Canada
- Status: CD 15869 is a joint working group between ISO TC 197 and TC 58 SC 3. Remaining technical issue a TC 58 SC 3 internal disagreement over design factors related to hydrogen embrittlement
- The U.S. TAGs 197 & 58 SC 3 voted to not move the draft forward
- Work item was approved for consideration as a draft international standard

# WG 7 Basic considerations for the safety of hydrogen systems

- Convener: Germany
- Status: The Committee voted to change DPAS 15916 to a technical report TR
- Dr. Steve Woods of the US agreed to draft a new introduction and recast the current draft to conform to the format for a technical report
- Document draft to be available in March 2002

# WI 8 Hydrogen generators using water electrolysis process

- Convener: Canada
- Status: approved as a new work item with a target date of late April 2002 for a committee draft

# ISO TC 197 Liaisons

- Formal agreements with ISO TC 58 and ISO IEC TC 105
- Joint standard on tanks under development with TC 58
- Under negotiation with TC 22
- Authorized to negotiate an agreement with TC 220
- Joint standard sought on multimodal transport of liquid hydrogen

# European Integrated Hydrogen Project

- To develop draft regulations for the use of hydrogen as a vehicle fuel
- Two draft standards developed in phase 1
- Presentation made at ISO Plenary Meeting in Paris
- U.S. and Canadian position was that the EIHP tank standards should be considered within ISO and not have duplicate efforts