

## Informal Report on ISO TC 197 Plenary Meeting

By Karen Hall

ISO TC 197, **Hydrogen Technologies**, held its 2006 annual plenary on June 8 in conjunction with the 16th World Hydrogen Energy Conference (WHEC). AFNOR, the member body from France, hosted the meeting, along with meetings of working groups, at its facility in Saint Denis, on the outskirts of Paris.

Very brief summary reports for the work items are provided here. These are informal, and based on my own notes taken at the Plenary meeting. Formal minutes will be provided to member countries of ISO TC 197 at a later date. The key for abbreviations and acronyms is as follows:

CD: Committee Draft  
Cor: Corrigendum  
DIS: Draft International Standard  
DTC: Draft Technical Corrigendum  
DTS: Draft Technical Specification  
FDIS: Final Draft International Standard  
IS: International Standard  
TS: Technical Specification  
WD: Working Draft  
WG: Working Group  
WI: Work Item

The proposed dates for publications of all work items are as follows:

WG1: WI 13985: **Liquid hydrogen — Land vehicle fuel tanks**  
FDIS: June 2006  
IS: December 2006

WG5: WI 17268: **Compressed hydrogen surface vehicle refuelling connection devices**  
CD due Dec 2006. No NWIP necessary to begin revision work, as it is already part of the scope.  
Current version is mainly harmonized with the SAE J2600 standard published in October 2002. The revision will include more recent changes to the SAE document.  
Revision target dates:  
CD: December 2006  
DIS: June 2007  
FDIS: June 2008  
IS: December 2008

WG6: WI 15869: **Gaseous hydrogen and hydrogen blends — Land vehicle fuel tanks**  
FDIS: February 2007 based on the US request to extend circulation by 3 months (from 2 months to 5). This document had large number of comments. Addressing each properly is anticipated to take some time. Therefore the US exercised the right of any P-member country to request additional time for circulation.  
IS August 2007

WG8: WI 22734: **Hydrogen generators using water electrolysis process**  
Part 1 Industrial and Commercial applications  
FDIS: January 2007  
IS: July 2007  
Part 2: Residential Applications  
DIS: January 2007  
FDIS: January 2008  
IS: July 2008

The next WG 8 meeting is scheduled to be held during the week of August 28, 2006 at Air Liquide in Paris

WG9: WI 16110: **Hydrogen generators using fuel processing technologies**

WG9 met this week in Paris for two days, and made good progress. There are two parts to this work – Safety and Performance. The WG discussed comments on the DIS for Part 1 - Safety. There were 170 comments received. The draft FDIS is scheduled to be sent to Secretary next week. Part 2 – Performance is still a Working Draft. The WG made progress and finalized the work to be done. Critical issues were raised by Japan with respect to the calculation of efficiency. This is a sensitive subject. The WG decided to leave the efficiency equation out of the standard. How to determine inputs and outputs will be addressed.

Part 1 safety:

FDIS: September 2006

IS: March 2007

Part 2 test methods for performance

CD: September 2006

DIS: March 2007

FDIS: March 2008

IS: September 2008

WG10: WI 16111: **Transportable gas storage devices — Hydrogen absorbed in reversible metal hydrides**

Ned Stetson reviewed what happened in Palm Springs – the WG is preparing a TS concurrent with a DIS due to the need for a standard that can be referenced. In May, the Central Secretariat sent word that TC 58 also needed to approve the document. WG10 met yesterday to discuss comments received from the 2<sup>nd</sup> CD circulation. Clean-up of the document based on these comments is in progress. The Convener expects the draft should be sent to Secretary in July. The goal of the Working Group is to have the TS approved before the next meeting of the United Nations Subcommittee on Dangerous Goods.

DTS: July 2006

TS: December 2006

DIS: March 2007

FDIS: March 2008

IS: September 2008

WG11: WI 20012: **Gaseous hydrogen— Fuelling stations**

The next meeting is planned for the week of August 28 in Paris.

DTS: February 2007

TS: August 2007

The Convener stated he anticipates the draft may need a lot of editing work, based on WG8 editing comments, which are being considered for this document

WG12: WI 14687: **Hydrogen fuel — Product Specification**. There are two work items in this Working Group:

ISO/DTS 14687-2: Hydrogen Fuel — Product Specification — Part 2: PEM fuel cell applications for road vehicles; and Cor 2 to ISO 14687:1999. The Corregendum is to remove PEM fuel cell for road vehicles from ISO 14687:1999, and the draft T.S. is to define requirements for these applications. The two work items are to be released simultaneously.

DTC: July 2006

DTS: July 2006

TS: October 2006

CD: October 2007

DIS: October 2008

FDIS: October 2009

IS: April 2010

Sylvie Gingras sent her Editing Committee comments on the draft TS to WG 12 and Karen Hall (also a member of the Technical Editing Committee) simultaneously. Karen asked the procedure/mechanism to resolve the issue that the editing isn't done, and the WG is working with a document with incomplete editing. Sylvie and Karen are to work out any issues with the Technical Editing changes received so far off-line. WG 12 should proceed with best version possible at their meeting tomorrow.

WG13: WI 26142: **Hydrogen detectors**

CD: September 2006

DIS: May 2007

FDIS: May 2008

IS: September 2008

Many comments were received on the 2<sup>nd</sup> draft. The WG didn't get through all of them yesterday. The 3<sup>rd</sup> meeting is planned for the end of October. The document is expected to then move to the CD stage. The WG generated a revision to their scope, which must be approved by TC 197. After much discussion, the proposed changes were not supported. Some members of TC 197 suggested the scope focus on the function – multilevel sensing – rather than application. The rationale was that it is not up to us to say where this standard is to be applied, but to define requirements for a hydrogen-specific detector that indicates levels of hydrogen. Other members suggested the scope be limited to hydrogen refueling stations, as this work item was originally proposed, to avoid application spread. TC 197 directed WG 13 to propose a new scope and title to make it clearer, taking the discussion into account.

TC 31 and TC 197 are building a better relationship and have an agreement for this WI.

CD: November 2006

DIS: May 2007

FDIS: May 2008

IS: September 2008

Update on Published standards:

ISO 13984:1999 The recent systematic review has been completed. The result is that TC 197 will reconfirm this IS.

ISO 14687:1999/Corr 2001 H2 Fuel Product Specification – A systematic review is to be launched at same time as the DTS and proposed technical corrigendum are circulated.

176268:2006 was published in April 2006.

There were no new work item proposals.

Membership – The United Kingdom and India joined TC 197 as P-members.

Ad hoc group on hydrogen components - estimated completion date is 30 September 2006.

The next step is a meeting of the ad hoc group to approve the final report is next step.

ISO Round Table on Global Harmonization of regulations, codes and standards (RC&S) for Gaseous Fuels and Vehicles: This meeting is scheduled for January 2007 in Geneva. ISO is Inviting 400 participants – and expects about 60 to attend from automotive, industry and regulatory organizations. See meeting announcement ([LINK TO ANNOUNCEMENT FROM ISO WEBSITE](#))

Next meeting: In conjunction with the World Hydrogen Technologies Convention WHTC Nov 4-7 2007, Italy has invited ISO TC 197 to Montecatini Terme (in Tuscany, between Florence and Pisa). In addition, the 20<sup>th</sup> World Energy Congress & Exhibition will be held the week of Nov 11-15 in Rome. Italy proposed ISO meetings between these dates. Randy Dey proposed Nov 8 for the ISO TC 197 Plenary, and WG meetings throughout the week of Nov 4.