

## Summary Notes/Jim Ohi

ISO TC197 WG12 Meeting  
Palm Springs, CA  
November 11, 2005

Working Group12 of ISO TC197 held its fifth meeting on November 11 in Palm Springs, CA, and adopted a resolution authorizing the Convener of WG12, Professor Yasuo Takagi, to submit the draft Technical Specification for hydrogen fuel quality (DTS 14687-2, Hydrogen Fuel-Product Specification-Part 2: PEM fuel cell applications for road vehicles) to TC197. Under the present timetable, DTS 14687-2 should be circulated within TC197 for review by March 2006 and approved as a TS by December 2006. In its current form, TS14687-2 and SAE J2719 are essentially harmonized; the only substantive difference is the recommended upper limit for CO<sub>2</sub>, which is 2 μmole/mole vs. 1 μmole /mole, respectively. WG12 also agreed to insert the following provisions in DTS14687-2 regarding nozzles and receptacles to be used with gaseous and liquid hydrogen fuel for PEM fuel cells in road vehicles:

ISO TC 14687-2, Type I, Grade D Fuel is to be used exclusively with a nozzle/receptacle according to ISO Standard 17268. These nozzles are not recommended to be used at any time with Type I grade A fuel as they could become contaminated and have serious detrimental effects to fuel cell vehicles.

TS 14687-2 Type II, Grade D Fuel is to be used exclusively with a nozzle/receptacle according to ISO Standard 13984.

The majority of the meeting was devoted to a discussion of the long-term R&D and testing needed to develop an international standard for hydrogen fuel quality based on DTS 14687-2. Japan presented its perspectives on long-term R&D needs and an R&D and testing plan for hydrogen fuel specifications. The US and Canada presented a North American perspective on testing and R&D in a joint presentation by DOE (Los Alamos National Laboratory and NREL), SAE, University of Hawaii, and the USFCC. The presentations will be posted on the TC197 USTAG website.

The perspectives of Japan and North America on the testing and R&D needs are similar and will provide a starting point for developing a collaborative effort. Key questions include what additional knowledge is needed to prepare an international standard, who can do the work to obtain this knowledge, and what information needs to be shared among the participants. Each of the key parties, North America, Asia, and, hopefully, the EU, will prepare a list of R&D and testing priorities for discussion at the next meeting of WG12 schedule in San Francisco, CA, on February 23-24, 2006.