



ISO/TC 197
Hydrogen technologies

Email of secretary: jim.ferrero@bnq.qc.ca
Secretariat: SCC (Canada)

Interview with ISO TC 197 Chair 2017-09

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Background: Here is another in the series of interviews with the Chair of ISO/TC 197 prepared by Karen Quackenbush.

This interview deals with an international conference, the upcoming TC 197 Plenary in China and the advancement of the TC 197 standard development projects.

All of the interview articles have been published in the Hydrogen and Fuel Cell Safety Report that is prepared by the Fuel Cell and Hydrogen Energy Association (FCHEA).

Committee URL: <http://isotc.iso.org/livelink/livelink/open/tc197>

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Interview with ISO TC 197 Chair

By Karen Quackenbush, FCHEA

In this eighth installment of FCHEA's "Interview with the ISO/TC 197 Chairman" series of articles, Dr. Andrei V. Tchouvelev shares his enthusiasm over the progress and activities of the ISO/TC 197 work program.

The discussion comes in the middle of a very busy month for Dr. Tchouvelev who acknowledges that it is an exciting time for hydrogen technologies. "In September alone, we are busy preparing for significant activities at an international conference, preparing for the 2017 ISO/TC 197 Plenary and working group meetings that will take place in China in December, and advancing documents on the path to International Standards", Dr. Tchouvelev exclaimed.

"I led two activities at the 7th International Conference on Hydrogen Safety (ICHHS 2017), which was held in Hamburg, Germany on September 11-13, 2017", he continued.

"First, as part of the traditional topical lecture on ISO/TC 197, I invited Herve Barthelemy and Nick Barilo to a Mini-round table to share relevant international activities related to the hydrogen infrastructure rollout. The key point of my update was to highlight, via a forensic investigation of a specific example, the discrepancy between sometimes idealistic (and inconsistent) standard requirements and the reality of hydrogen components availability in the global market place. Later in the conference, a similar example was presented by Air Liquide. These examples underscore the fact that the current hydrogen components market is still microscopically small and international standards must be practical to assist the industry bravely marching through the valley of death", Dr. Tchouvelev stated. "This also prompted me to conclude that this discussion should be continued at the upcoming ISO/TC 197 plenary meeting in China, where we will hold a mini-round table on the standardization of hydrogen components within the Business Plan segment of the agenda".

“Second, I Chaired a Safety Plenary that features a talk by Nick Barilo of PNNL, on US Hydrogen Safety Panel Experience; a presentation on the Outcome of the Research Priorities Report (RPW2016) by Jay Keller representing HySafe, and two topical presentations on Risk Perception and Technology Acceptance (on HYACINTH, a study by the European Union on FCEV Rollout by Paul Upham, and a discussion on trust building by Thomas Jordan and Christian Büscher). The latter subject is of particular importance to hydrogen community since building the public trust towards hydrogen & fuel cell technologies is paramount for their commercial success. All of these activities are very relevant to the development of international standard for hydrogen, since they provide a number of guiding vectors”, Dr. Tchouvelev explained.

“The ISO/TC 197 Plenary meeting will take place on December 7th and 8th, 2017 in Foshan, China”, and Working Group meetings will be held on Monday December 4th and Tuesday December 5th also in Foshan, China”, he mentioned. “As well, building on the success of last year, I am happy to confirm there will be a Strategic Meeting/Workshop on Wednesday December 6th in Foshan”, he announced. “This time the Strategic Planning Meeting will be jointly organized by ISO/TC 197 and the Chinese National Mirror Committee, and is expected to be attended by over 400 people. It will be focused on two main topics: real-world experience in the deployment of H₂ fueling stations in dense urban / city environment (morning session) and technological advancements in HFC technologies and infrastructure (afternoon session). The technical presentations will feature leading Chinese and international experts. Stay tuned for the detailed agenda that will be released shortly!”, Dr. Tchouvelev exclaimed.

“Finally”, Dr. Tchouvelev noted, “there is significant progress being made in the Working Groups on the family of documents for gaseous hydrogen fueling stations, as well as other documents in the TC 197 work program.”

Here is a list of ISO/TC 197 documents which have been circulated for comment and approval in the past few months:

- ISO/CD 14687.2, Hydrogen fuel quality — Product specification
- ISO/DIS 19880-2, Gaseous hydrogen — Fueling stations — Part 3: Dispensers
- ISO/DIS 19881, Gaseous hydrogen – Land vehicle fuel containers

- ISO/DIS 19882, Gaseous hydrogen — Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers
- ISO/DIS 19880-8, Gaseous hydrogen — Fueling stations — Part 8: Fuel quality control
- ISO/DIS 17268, Gaseous hydrogen land vehicle refueling connection devices
- ISO/DIS 16111, Transportable gas storage devices — Hydrogen absorbed in reversible metal hydride
- ISO/CD 19880-5.2, Gaseous hydrogen — Fueling stations — Part 5: Hoses and Hose Assemblies
- ISO/DIS 19880-3.2, Gaseous hydrogen — Fueling stations — Part 3: Valves

“It is a very busy and exciting time for hydrogen technology standards”, Dr. Tchouvelev concluded.