



ISO/TC 197
Hydrogen technologies

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

NWIP on hydrogen quality (TC197 Fukuoka)

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Restructuring Hydrogen Quality Standards (NWIP)

December 2014

Kazuo Koseki

Technical Program Director (TPD)

Title of new standard

Hydrogen quality specification (tentative)

Purpose

Compiling ISO14687-1, -2 and -3 into one document

NOTE :

14687-1 [Hydrogen quality(Grade A,B, C) for applications except for PEFC]

14687-2 [Hydrogen quality(Grade D) for PEFC for road vehicle]

14687-3 [Hydrogen quality(Grade E) for stationary PEFC]

Rational of restructuring

1. Partially same texts between 14687-1, 14687-2 and 14687-3.
2. A series of hydrogen grade names through 14687-1, 14687-2 and 14687-3.

Scope(tentative)

This part of ISO XXXXX specifies the quality characteristics of hydrogen in order to ensure uniformity of the hydrogen product used in the following applications:

1. PEFC road vehicle;
2. Stationary PEFC;
3. Other applications (internal combustion engine, jet engine, rocket engine, burning appliance, etc.).

Project leaders (co-convener)

First convener: Yasuo Takagi (former WG12 convener)

Second convener: Osamu Tajima (former WG14 convener)

Task group for standard development

Task group 1 (TG 1)

Leader: Yasuo Takagi,
Assigned area: Road vehicle

Task group 2 (TG2)

Leader: Osamu Tajima,
Assigned area: Stationary FC

Task group 3 (TG3)

Leader: TBD
Assigned area: Compilation of documents

Structure of standard

- 1 Common subjects (terms, analytical methods, etc.)
- 2 Subjects specific to PEFC vehicle
- 3 Subjects specific to stationary PEFC
- 4 Subjects specific to applications except PEFC

Readiness in preparation of NWIP

- 1 Preliminary survey such as:
 - Ranking of impurities
 - Threshold values
 - Validation of analytical methods (ASTM D03, TC158)
 - Quality control at delivery
 - Representative operating cycles of vehicles
 - Resources and/or interest to undertake testing on non-specific generic fuel cell systems in labs
 - P-members to provide experts

- 2 Circulate a questionnaire and get results by March, then PWI meetings.

NWIP on hydrogen quality control

- Option 1 Add a hydrogen quality control as an ANNEX in the Hydrogen quality specification Standard
(Another NWIP is not required)
- Option 2 Publish as series but different standards (Part 1: Hydrogen quality specification, Part 2: Hydrogen quality control)
- Option 3 Publish as complete different standards (ISO XXXXX Hydrogen quality specification, **ISO19880-8** Hydrogen quality control)

NOTE 19880-8 is a reserved number as one of station series)

Timing of NWIP on H2 quality control

