



ISO/TC 197  
Hydrogen technologies

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### **Final Resolutions Plenary Dec 12 13 2019**

Document type: Resolution

Date of document: 2019-12-13

Expected action: INFO

Background: Please find attached:  
All Final Resolutions taken at the 28th Plenary of the ISO/TC 197 committee in Grenoble, France.  
All draft resolutions were proposed by the resolution drafting committee and read to the TC for voting.  
All draft resolutions were shown on-screen to the TC at the end of the plenary session on December 13. J. Lafontaine was instructed to make 2 editorial modifications: add the titles of all ISO documents mentioned in the resolutions and for resolution 471 to identify the list of countries that were in favour, abstained, or disageed.  
As mentionned, this document is considered to contain the FINAL resolutions.

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

## Final Resolutions

These are the final resolutions drafted by the resolution drafting committee and shown to ISO/TC 197.

These resolutions were taken during the 28<sup>th</sup> plenary meeting of ISO/TC 197 on December 12-13, 2019 in Grenoble, France.

### **Resolution 456:**

ISO/TC 197 agrees to establish a drafting committee for this 28<sup>th</sup> Plenary Meeting as follows:

- Ms. Karen Quackenbush (United States)
- Mr. Jim Ferrero (Canada, former Secretary of ISO/TC 197)
- Mr. Frédéric Solbes (France)
- Mr. Nick Hart (United Kingdom)

Unanimously approved.

### **Resolution 457:**

ISO/TC 197 approves the Report of the 27th Plenary Meeting of ISO/TC 197 held in Vancouver, British Columbia, Canada, on December 6-7, 2018.

Unanimously approved.

### **Resolution 458:**

ISO/TC 197 agrees to convey to ISO/TC 58 that it has no opposition to ISO/TC 58 proposing the latest version of ISO 16111 *Transportable gas storage devices — Hydrogen absorbed in reversible metal hydride* to the United Nation for their consideration.

### **Resolution 459:**

ISO/TC 197 welcomes the presentation from the Netherlands and invites the Netherlands to formally submit a New Work Item Proposal within the next three months, based on H2 QualyGridS: Standardized qualifying tests of electrolyzers for grid services, with ISO/TC 197 as lead, with IEC/TC 8, IEC/TC 105, and potentially others as a joint working group.

Approved. Germany abstains.

**Resolution 460:**

ISO/TC 197 agrees to develop an amendment to ISO 19880-8 *Gaseous hydrogen — Fuelling stations — Part 8: Fuel quality control* in order to align with ISO 14687:2019 *Hydrogen fuel quality — Product specification*.

Project leaders for amendment: Hidenori Tomioka and Spencer Quong.

Timeframe: 6 months

Unanimously approved.

**Resolution 461:**

TC 197 approves the liaison with CEN 234.

Unanimously approved.

**Resolution 462:**

ISO/TC 197 agrees to develop an amendment to the newly-published ISO 19880-5 *Gaseous hydrogen — Fuelling stations — Part 5: Dispenser hoses and hose assemblies* that addresses three small editorial issues missed prior to publication.

Project leader for amendment: Karen Quackenbush.

Timeframe: 6 months.

Unanimously approved.

**Resolution 463:**

ISO/TC 197 thanks the convenors of working groups that resulted in publication of the following five standards:

ISO 14687:2019 *Hydrogen fuel quality — Product specification* (Yasuo Takagi and Osamu Tajima)

ISO 22734:2019 *Hydrogen generators using water electrolysis — Industrial, commercial, and residential applications* (Larry Moulthrop)

ISO 19880-8:2019 *Gaseous hydrogen — Fuelling stations — Part 8: Fuel quality control* (Hidenori Tomioka)

ISO 19880-5:2019 *Gaseous hydrogen — Fuelling stations — Part 5: Dispenser hoses and hose assemblies* (Karen Quackenbush)

ISO 21087:2019 *Gas analysis — Analytical methods for hydrogen fuel — Proton exchange membrane (PEM) fuel cell applications for road vehicles* (JWG) (Martine Carré)

**Resolution 464:**

ISO/TC 197 agrees to create a Working Group to develop a revision to ISO/TR 15916 *Basic considerations for the safety of hydrogen systems* that updates the materials compatibility table and other items as necessary.

Project leader: Jay Keller.

Timeframe: 6 months.

A dedicated formal call for experts will be launched consequently.

Unanimously approved.

**Resolution 465:**

ISO/TC 197 welcomes the presentation from the United States and invites the United States to formally submit a New Work Item Proposal within the next three months, based on the need for standards for hydrogen fueling protocols for heavy-duty, high-flow applications.

Unanimously approved.

**Resolution 466:**

ISO/TC 197 welcomes the presentation from Australia and invites Australia, with the support of the UK, Nick Hart, to investigate ways where ISO/TC 197 can support an effort at CEN level or elsewhere, based on the need for standards for domestic and commercial catering gas appliances that would run with 100% hydrogen.

Unanimously approved.

**Resolution 467:**

ISO/TC 197 welcomes the agreement of ISO/TC 22/SC41 to revise ISO 12619 *Road vehicles — Compressed gaseous hydrogen (CGH2) and hydrogen/natural gas blend fuel system components* series to exclude the pure hydrogen ICE topic and approves the establishment of a JWG with SC41 related to natural gas/hydrogen blends under SC41 responsibility.

Unanimously approved.

**Resolution 468:**

ISO/TC 197 welcomes the presentation from Canada and invites Canada to submit a New Work

Item Proposal within the next three months, based on the need for standards for fuel system components for compressed hydrogen vehicles.

Unanimously approved.

**Resolution 469:**

ISO/TC 197 welcomes the presentation from Japan and invites Japan to submit a New Work Item Proposal within the next six months, based on the need for a standard for O-rings for hydrogen fueling stations.

Unanimously approved.

**Resolution 470:**

ISO/TC 197 welcomes the presentation from Norway and the United Kingdom and invites Norway and the United Kingdom to submit a New Work Item Proposal within the next nine months, based on the need for a standard on methodology for sampling hydrogen gas impurities and particulates, establishing a JWG between ISO/TC 158 and ISO/TC 197 under the responsibility of ISO/TC 197.

Unanimously approved.

**Resolution 471:**

ISO/TC 197 agrees to reopen work item 19884 *Gaseous hydrogen - Cylinders and tubes for stationary storage* and welcomes New Work Item Proposals within the next three months.

Approved:

9 in favour (Canada, Czech Republic, Germany, Italy, Japan, Norway, Republic of Korea, United States, United Kingdom)

3 abstain (Australia, China, France)

0 against

**Resolution 472:**

ISO/TC 197 confirms the composition of its Permanent Editing Committee. The members are comprised of:

- Ms. Karen Quackenbush, United States  
Mr. Frédéric Solbes, France
- Mr. Jonathan Lafontaine, ISO/TC 197 Secretary

Unanimously Approved.

**Resolution 473:**

ISO/TC 197 approves the creation of an ad Hoc group within ISO Livelink for the purpose of creating working space for the Permanent Editing Committee.

Unanimously Approved.

**Resolution 474:**

ISO/TC 197 accepts with gratitude the invitation from Korea to hold the next ISO/TC 197 meetings in Seoul from December 7-11, 2020.

**Resolution 475:**

ISO/TC 197 thanks Dr. Schmidtchen of Germany for his dedicated work for many years as Chair of the German mirror committee and wish him all the best in the future.

Unanimous approval.

**Resolution 476:**

ISO/TC 197 deeply thanks Mr. Jim Ferrero for his outstanding leadership and service as the TC Secretary, a member of the Technical Advisory Board and a member of the Permanent Editing Committee, and wishes him good health and prosperity.

Unanimous approval.

**Resolution 477:**

ISO/TC 197 approves all resolutions of the 28th plenary meeting of ISO/TC 197 on December 12-13, 2019 in Grenoble, France (Resolution numbers 456 through 477).

Unanimous approval.

**Appreciation:**

ISO/TC 197 thanks Prof. Takagi for his convenorship activities from 2003 to 2019.

Acclamation by ISO/TC 197.

**Appreciation:**

ISO/TC 197 thanks Japan and Korea for their presentations of their national hydrogen activities.

Acclamation by ISO/TC 197.

**Appreciation:**

ISO/TC 197 warmly thanks the French sponsors, AIR LIQUIDE, CAHOUE, CEA, ENGIE, ERGOSUP, INERIS, MAHYTEC, MCPHY, MICHELIN, STAUBLI and STELIA COMPOSITES as well as AFNOR, the French national standardization body, for their support in making possible hosting the meetings, WGs, Plenary and Strategic Planning Meeting, in Grenoble, providing excellent meeting space and inviting fine lunches.

ISO/TC 197 wishes to extend very sincere appreciation to Pierre Serre-Combe from CEA in leading the organization of the meetings in Grenoble and in organizing the visit of CEA facilities, as well as to Guy de Reals from AIR LIQUIDE in arranging the social event and in organizing the visit of AIR LIQUIDE facilities.

And finally, ISO/TC 197 thanks Jim Ferrero, former ISO/TC 197 Secretary, for his volunteer efforts in assisting with planning and smooth conduct of the meetings this week.

Acclamation by ISO/TC 197.