

N590 NWIP Canada

ISO/TC 197

Secretariat: **SCC (Canada)**

Vote begins on: **2013-07-10**

Vote terminates on: **2013-09-09**

ISO/TC 197

Hydrogen technologies

Technologies de l'hydrogène

NP Ballot : N590 NWIP Canada

Gaseous hydrogen - Land vehicle fuel tanks - Thermally activated pressure relief devices

Source

Project

Medium [Electronic ballot](#) on ISOTC

Note Please refer to the TAB recommendation (N592).

Summary of questions:	
1a. Do you approve, disapprove or abstain on this NWIP?	approve * disapprove * abstain
Please also select from one of the following options (note that if no option is selected, the default will be the first option):	Draft document will be registered as new project in the committee's work programme (stage 20.00) Draft document can be registered as a Working Draft (WD - stage 20.20) Draft document can be registered as a Committee Draft (CD - stage 30.00) Draft document can be registered as a Draft International Standard (DIS - stage 40.00)
In case of disapproval, do you believe that further study and consultations are needed first among committee members on this proposal as a preliminary work item before this proposal can be formally accepted?	Yes No

1b. Did you consult with the range of relevant stakeholders identified in the proposal in the development of this voting position and related comments?	Yes No
2. Standard(s), regulation(s), and other relevant documentation existing in our country, with any remarks concerning their application if necessary and consequences for global relevance, as well as copyright information on these documents, are attached:	Yes (references provided below) * No
3. Do you wish to add any additional comments?	Yes * No
4. We are committed to participating actively in the development of the project, at least by commenting on working drafts (P-members voting "Disapprove" in Qu. 1a may nevertheless nominate experts):	Yes (and we nominate an expert below) * No
<i>(*) A Comment is required for this answer value</i>	



ISO/TC 197
ISO/TC 197 - Hydrogen technologies
Email of secretary: jim.ferrero@bnq.qc.ca
Secretariat: SCC (Canada)

N590 NWIP Canada - Hydrogen Pressure Relief Devices for Land Vehicle Tanks

Document type: NP ballot

Date of document: 2013-07-10

Expected action: VOTE

Action due date: 2013-09-09

Background: Dear TC Members,

Please find attached the New working item proposal (NWIP) for the development of an ISO Standard for *Gaseous hydrogen - Land vehicle fuel tanks - Thermally activated pressure relief devices*, submitted by Canada.

This NWIP has been posted on the ISO Balloting Portal and P-Members are asked to use that system to vote and state the rationale for their vote.

Note that the recommendation of the TC 197 Technical Advisory Board (TAB) for this NWIP will be sent as a separate N-document (N592).

Best regards,

Jim Ferrero

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



NEW WORK ITEM PROPOSAL	
Closing date for voting 2013-09-09	Reference number (to be given by the Secretariat)
Date of circulation 2013-07-09	ISO/TC 197 / SC N 590
Secretariat Canada/SCC/BNQ	<input type="checkbox"/> Proposal for new PC

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, or organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

IMPORTANT NOTE: Proposals without adequate justification risk rejection or referral to originator.

Guidelines for proposing and justifying a new work item are contained in Annex C of the ISO/IEC Directives, Part 1.

Proposal (to be completed by the proposer)

<p>Title of the proposed deliverable. <i>(in the case of an amendment, revision or a new part of an existing document, show the reference number and current title)</i></p> <p>English title Gaseous hydrogen – Land vehicle fuel tanks -- Thermally activated pressure relief devices</p> <p>French title (if available)</p>
<p>Scope of the proposed deliverable.</p> <p>This International Standard establishes minimum requirements for thermally activated pressure relief devices for compressed hydrogen land vehicle fuel tanks.</p> <p>Pressure relief devices designed to comply with this standard are intended to be used with hydrogen fuel complying with fuel cell grade hydrogen per ISO 14687-2 for fuel cell land vehicles, and Grade A or better hydrogen per ISO 14687-1 for internal combustion engine land vehicles.</p> <p>Pressure relief devices may be of any design or manufacturing method that meets the requirements of this International Standard. The construction of pressure relief devices, whether specifically covered in this International Standard or not, shall be in accordance with reasonable concepts of safety, performance and durability.</p> <p>This International Standard does not apply to reseating, resealing or pressure activated devices.</p>

Purpose and justification of the proposal.

The purpose of the proposed ISO standard is to promote the implementation of hydrogen powered land vehicles through the creation of performance based testing requirements for pressure relief devices for compressed hydrogen fuel tanks. The successful commercialization of hydrogen land vehicle technologies requires codes and standards pertaining to fueling stations, vehicle fuel system components and the global homologation of standards requirements for technologies with the same end use. This will allow manufacturers to achieve economies of scale in production through the ability to manufacture one product for global use.

The scope of the ISO standard will be limited to pressure relief devices installed on fuel tanks containing fuel cell grade hydrogen per ISO 14687-2 for fuel cell land vehicles, and Grade A or better hydrogen per ISO 14687-1 for internal combustion engine land vehicles. The ISO standard will also contain requirements for pressure relief devices acceptable for use on-board light duty vehicles, heavy duty vehicles and industrial powered trucks such as forklifts and other material handling vehicles.

The proposed standard will be harmonized with the draft UN Global Technical Regulation (GTR) for Hydrogen Fuel Cell Vehicles being developed by UN WP.29 and will use CSA HPRD 1 as the seed document.

The development of this ISO standard is critical because a lack of internationally harmonized standards will further delay the successful commercialization of compressed hydrogen as a vehicle fuel.

If a draft is attached to this proposal,:

Please select from one of the following options (note that if no option is selected, the default will be the first option):

- Draft document will be registered as new project in the committee's work programme (stage 20.00)
- Draft document can be registered as a Working Draft (WD – stage 20.20)
- Draft document can be registered as a Committee Draft (CD – stage 30.00)
- Draft document can be registered as a Draft International Standard (DIS – stage 40.00)

Is this a Management Systems Standard (MSS)?

- Yes No

Indication(s) of the preferred type or types of deliverable(s) to be produced under the proposal.

- International Standard Technical Specification Publicly Available Specification Technical Report

Proposed development track 1 (24 months) 2 (36 months - default) 3 (48 months)

Known patented items (see ISO/IEC Directives, Part 1 for important guidance)

- Yes No **If "Yes", provide full information as annex**

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables. The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized.

There are currently no international standards that address pressure relief devices for on-board tanks for hydrogen applications. As noted above, the proposed standard will be harmonized with the UN GTR for Hydrogen Fuel Cell Vehicles.

<p>A listing of relevant existing documents at the international, regional and national levels.</p> <p>UN Global Technical Regulation on Hydrogen Fuel Cell Vehicles CSA HPRD 1 Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers SAE J2579 Fuel Systems in Fuel Cell and Other Hydrogen Vehicles CGA S-1.1 Pressure Relief Device Standards Part 1—Cylinders for Compressed Gases CSA HPIT 1 System Components for Powered Industrial Trucks CSA CHMC 1 Test Methods for Evaluating Material Compatibility in Compressed Hydrogen Applications Phase 1 - Metals ISO 14687-2 Hydrogen Fuel - Product Specification - Part 2: Proton Exchange Membrane (PEM) Fuel Cell Applications for Road Vehicles ISO 14687-1 Hydrogen Fuel - Product Specification - Part 1: All Applications Except Proton Exchange Membrane (PEM) Fuel Cell for Road Vehicles</p>	
<p>A simple and concise statement identifying and describing relevant affected stakeholder categories (including small and medium sized enterprises) and how they will each benefit from or be impacted by the proposed deliverable(s)</p> <p>The stakeholders expected to benefit from the proposed standard include automotive manufacturers, pressure relief device manufacturers, integrators and the general public.</p>	
<p>Liaisons: A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). ISO/TC22/SC 21 ISO/TC 22/SC 25 ISO/TC 58/SC 3</p>	<p>Joint/parallel work: Possible joint/parallel work with: <input type="checkbox"/> IEC (please specify committee ID) <input type="checkbox"/> CEN (please specify committee ID) <input type="checkbox"/> Other (please specify)</p>
<p>A listing of relevant countries which are not already P-members of the committee.</p>	
<p>Preparatory work (at a minimum an outline should be included with the proposal) <input type="checkbox"/> A draft is attached <input type="checkbox"/> An outline is attached <input type="checkbox"/> An existing document to serve as initial basis The proposer or the proposer's organization is prepared to undertake the preparatory work required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>Proposed Project Leader (name and e-mail address) Livio Gambone livio.gambone@powertechlabs.com</p>	<p>Name of the Proposer (include contact information) Livio Gambone Powertech Labs Inc. Surrey, British Columbia, Canada</p>
<p>Supplementary information relating to the proposal</p> <p><input checked="" type="checkbox"/> This proposal relates to a new ISO document; <input type="checkbox"/> This proposal relates to the amendment of existing ISO document <input type="checkbox"/> This proposal is for the revision of an existing ISO document; <input type="checkbox"/> This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item; <input type="checkbox"/> This proposal relates to the re-establishment of a cancelled project as an active project. Other:</p>	

Annex(es) are included with this proposal (give details)

Table of contents of the draft Standard for Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers



CSA HPRD 1

Thermally activated pressure relief devices for compressed hydrogen vehicle fuel containers

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This standard contains SI (Metric) corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (*Standard for use of the International System of Units (SI): The Modern Metric System, IEEE/ASTM SI 10 or Metric Practice Guide, CAN/CSA Z234.1* are used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both shall be provided.