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## ENTERPRISE SINGAPORE CALLS FOR PUBLIC COMMENTS – 2 FEBRUARY 2024

Under the National Standardisation Programme, the public comment period is an important stage of standards development. Members of the public are invited to provide feedback on draft Singapore Standards for publication and work item proposals for development and review of Singapore Standards and Technical References. The establishment of Singapore Standards is done in accordance with the World Trade Organisation's requirements for the development of national standards.

### A) Notification of Draft Singapore Standards for Publication

Members of the public are invited to comment on the following Singapore Standard:

Building and Construction – [concrete](#)

Closing date for comments: **3 April 2024**

For more information on viewing the document, [click here](#).

Please submit comments to: [standards@enterprisesg.gov.sg](mailto:standards@enterprisesg.gov.sg).

### B) Notification of New Work Item Proposals

New Work Items (NWIs) are approved proposals to develop new Singapore Standards, or pre-standards like Technical References and Workshop Agreements.

Members of the public are invited to comment on the scope of the new standards and contents that can be included into the following proposals:

Building and Construction – [hybrid cooling system for air-conditioning application](#)

Electrical and Electronic – [photovoltaic modules](#)

Transportation – [intelligent transport system](#) (4 standards), [competence of personnel related to work on or near the track](#)

The NWI are work-in-progress, and the drafts are not available at this juncture.

Closing date for comments: **4 March 2024**

Members of the public are invited to join as standards partners, co-opted members or resource members subject to the approval of relevant committees and working groups.

To comment or to join in the development of these standards, please write to [standards@enterprisesg.gov.sg](mailto:standards@enterprisesg.gov.sg).

## A) **Notification of Draft Singapore Standards for Publication**

### **Building and Construction**

#### **Confirmation with amendment**

**Concrete – Specification, performance, production and conformity (SS EN 206:2014)**  
(Identical adoption of EN 206:2013)

This standard applies to concrete for structures cast in situ, precast structures and structural precast products for buildings and civil engineering structures.

This standard specifies requirements for:

- constituents of concrete;
- properties of fresh and hardened concrete and their verification;
- limitations for concrete composition;
- delivery of fresh concrete;
- production control procedures;
- conformity criteria and evaluation of conformity.

This standard is confirmed with the proposed draft amendment to update the guidance for conformity assessment and amending the status of Annex C to an informative one.

Users of the standard include consultants, contractors, developers, engineers, suppliers/manufacturers, testing bodies, accreditation bodies, tertiary institutions and relevant government agencies.

Copies of the drafts and standards are available at:

#### **Viewing from Singapore Standards eShop**

Login to Singapore Standards eShop at: [www.singaporestandardseshop.sg](http://www.singaporestandardseshop.sg)

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#### **Viewing Singapore Standards and ISO Standards from Public Libraries**

All Public Libraries' multimedia stations and on personal internet/mobile devices (e.g. mobile phones, notebooks, tablets) at all Public Libraries via NLB databases "Singapore and ISO Standards Collection" (refer to <https://www.nlb.gov.sg/main/visit-us> for address and viewing hours)

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**NOTE** – The viewing period of the drafts and standards will expire on the closing of the public comment period and will no longer be available after this date.

## B) **Notification of New Work Item Proposals**

### (I) **Building and Construction**

#### 1. **Technical Reference – Hybrid cooling system for air-conditioning application**

This standard sets out requirements and recommendations for the design, installation and maintenance of hybrid cooling system. These requirements and recommendations are intended for application across various building types, including commercial and office buildings, whether they are newly built or undergoing retrofitting.

Hybrid cooling system is an alternative cooling system whereby the design and operational indoor set-point temperature of the air-conditioning system is increased and elevated with air movement through the use of fans to maintain indoor thermal comfort of occupants.

Potential users of the standard include building developers, engineers, architects, consultants and relevant government agencies.

**(II) Electrical and Electronic**

**2. Technical Reference – Photovoltaic (PV) modules – Type approval, design and safety qualification – Retesting (Identical adoption of IEC TS 62915:2023)**

This standard sets out a uniform approach to maintain type approval, design and safety qualification of terrestrial PV modules that have undergone or will undergo modifications from their originally assessed design. It addresses two types of PV module technologies, namely wafer-based technologies and monolithically-integrated thin-film based technologies.

Changes in material selection, components and manufacturing process can impact electrical performance, reliability and safety of the modified product. This standard lists typical modifications and the resulting requirements for retesting based on international standards.

Potential users of this standard include solar companies, testing and certification bodies and research institutes.

**(III) Transportation**

**3. Technical Reference – Intelligent transport system – Communications between on-board devices and roadside devices**

**Part 1: Probe data**

This standard provides concept of operations for probe data with the aim to homogenise the mechanism for edge/backend applications to collect vehicular and road environment data from vehicles that are equipped with cellular-V2X (C-V2X), equivalent module or sensor.

It covers message sets required for data exchange between on-board devices and roadside devices to support use cases of probe data collection from on-board devices. Additionally, it focuses on two probe data use cases that are relevant to Singapore's land transport, such as traffic data collection for smart signal control system and integrated transport management system.

**Part 2: Traffic priority and data relay management**

This standard covers I2X (Infrastructure to Everything) communications with focus on communications between roadside equipment (RSE) and other RSE and traffic light controllers. The standard includes RSE to RSE communications for relay information management.

**4. Technical Reference – Intelligent transport system – Road tunnel management**

This standard covers key system implementation requirements and guidelines related to road tunnel management for the following:

- Engineering requirements on placement of digital traffic signage to facilitate safe dissemination of information to motorists and road users.
- Technical functionalities that are required for visual monitoring (CCTV) and alerts of abnormalities in tunnel management.
- Backend interfacing protocol for various tunnel traffic devices.

**5. Technical Reference – Intelligent transport system – Traffic signals – Detection and sensory systems**

This standard covers the best practices and guidelines related to the detection and sensory system interface with traffic lights for the following:

- Data exchange format and protocols for key detection technologies interfacing with traffic signal controls e.g. occupancy-based detectors (induction loops for vehicles, push buttons/Green Man+ for pedestrians), image processing based (video analytics), vehicular probe, etc.
- Data exchange format and protocols between traffic signal controls and other C-ITS (cooperative intelligent transport system) applications and backend systems (including establishing publish-subscribe framework for transmission of data and faults, and alarm messaging formats arising from traffic controllers).
- Communication agnostic protocols, e.g. via DSRC (dedicated short-range communications), C-V2X or other communication technologies.

Potential users of the standards on intelligent transport system include suppliers/manufacturers, industry associations, contractors, tertiary institutions, research institutions and relevant government agencies.

**6. Railway applications – Track – Safety protection on the track during work – Part 3: Competences for personnel related to work on or near tracks (Adoption of EN 16704-3:2016+A1:2021)**

This standard defines activities related to working on or near the track and the associated competence profiles of persons (e.g. railway operators, regulators and railway-related stakeholders) carrying out these activities.

Potential users of the standard include rail transport operators, contractors, suppliers/manufacturers, tertiary institutions and relevant government agencies.

Submit Comments

## Frequently asked questions about public comment on Singapore Standards:

### 1. What is the public comment on Singapore Standards?

Singapore Standards are established based on an open system which is also in accordance with the requirements of the World Trade Organisation. These documents are issued as part of a consultation process before any standards are introduced or reviewed. The public comment period is an important stage in the development of Singapore Standards. This mechanism helps industry, companies and other stakeholders to be aware of forthcoming changes to Singapore Standards and provides them with an opportunity to influence, before their publication, the standards that have been developed by their industry and for their industry.

### 2. How does public comment on Singapore Standards benefit me?

This mechanism:

- ensures that your views are considered and gives you the opportunity to influence the content of the standards in your area of expertise and in your industry;
- enables you to be familiar with the content of the standards before they are published and you stand to gain a competitive advantage with this prior knowledge of the standards.

### 3. Why do I have to pay for the standards which are proposed for review or withdrawal?

These standards are available for **free viewing** at Toppan Leefung Pte Ltd and all Public Libraries. However, the normal price of the standard will be charged for those who wish to purchase a copy. At the stage where we propose to review or withdraw the standards, the standards are still current and in use. We seek comments for these standards so as to:

- provide an opportunity for the industry to provide inputs for the review of the standard that would make the standard suitable for the industry's use,
- provide feedback on the continued need for the standard so that it will not be withdrawn.

### 4. Why are comments only accepted through the new public comment form provided by Enterprise Singapore?

We have developed a new public comment form which will enable users to submit their comments in a standardised and structured manner. The Working Group (WG) that will be reviewing the comments will have a better understanding of what the commenter has proposed, the rationale for the changes and where these changes will be made in the standard. This will assist the WG in addressing the comments more effectively.

### 5. What happens after I have submitted my comments?

The comments will be channelled to the relevant WGs for consideration and you will be informed of the outcome of the committee's decision. You may be invited to meet the WG if clarification is required on your feedback.

### 6. Can I view drafts after the public comment period?

Drafts will not be available after the public comment period.

### 7. How do I request for the development of a new standard?

You can propose the development of a new standard [here](#).