Click here to get the public comment form. Comments will only be accepted via this form.

ENTERPRISE SINGAPORE CALLS FOR PUBLIC COMMENTS ON SINGAPORE STANDARDS – 1 AUGUST 2025

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, Technical References and Workshop Agreements. 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

Newly developed and revised Singapore Standards (SSs), and the outcomes of the reviews of existing SSs are available to the public to gather feedback on their contents and status prior to their completion.

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

Building and Construction – halon 1301 fire protection systems

Biomedical and Health – medical devices and equipment (5 standards)

Chemical – elastomeric seals

Electrical and Electronic – smart grids (2 standards), secondary cells (2 standards)

Environment and Resources – energy efficiency and renewable energy sources (2 standards), waste management

Food – nutrition and food service

Manufacturing – smart manufacturing (2 standards)

Safety and Quality – information security, cybersecurity and privacy protection (2 standards), gas cylinders (2 standards), risk management

Closing date for comments: **2 October 2025**

For more information on viewing the document(s), click here.

Please submit comments to: standards@enterprisesg.gov.sg.

B) Notification of Work Item Proposals

B.1 Proposal for New Work Items

New Work Items (NWIs) are approved proposals to develop new Singapore Standards, or pre-standards like Technical References and Workshop Agreements. The NWIs are work-in-progress, and the drafts are not available at the public comment stage.

Members of the public are invited to comment on the scope of the following NWI(s):

Chemical – bunker sampling

Safety and Quality – risk management

Closing date for comments: **2 September 2025**

B.2 Proposal for the Review of Singapore Standards

Published Singapore Standards, Technical References and Workshop Agreements are reviewed to determine if they should be updated, confirmed or withdrawn (if they no longer serve the industry's needs) or classified as mature standards (no foreseeable changes; to be reviewed only upon request). The reviews are ongoing, and the new versions/drafts are not available at this juncture. Users can refer to the current standards to provide feedback. Click here to view or purchase the standards.

Members of the public are invited to comment on the following standard(s) to be reviewed:

Chemical – fire safety

Environment and Resources – industrial recycled water

Safety and Quality – conformity assessment

Closing date for comments: **2 September 2025**

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.

A) Notification of Draft Singapore Standard for Publication

(I) Building and Construction

Withdrawal

1. Code of practice for Halon 1301 fire protection systems (CP 45:1989(2019))

This standard is recommended for withdrawal as Halon 1301 is banned in Singapore as part of the nation's commitment to the Montreal Protocol on Substances that Deplete the Ozone Layer.

There are no replacements as this standard is obsolete.

(II) Biomedical and Health

Amendment

2. Amendment No. 1 to Medical devices – Symbols to be used with information to be supplied by the manufacturer – Part 1: General requirements (SS ISO 15223-1:2021) (Identical adoption of ISO 15223-1:2021/Amd 1:2025)

This amendment includes an addition of defined term for authorised representative and a modified EC REP symbol so that it is not country or region specific.

Confirmation

3. Medical devices — Application of risk management to medical devices (SS ISO 14971:2020) (Identical adoption of ISO 14971:2019)

This standard specifies terminology, principles and a process for risk management of medical devices, including software as a medical device and in vitro diagnostic medical devices. The process described in this standard intends to assist manufacturers of medical devices to identify the hazards associated with the medical device, to estimate and evaluate the associated risks, to control these risks, and to monitor the effectiveness of the controls.

The requirements are applicable to all phases of the life cycle of a medical device. The process described in this standard applies to risks associated with a medical device, such as risks related to biocompatibility, data and systems security, electricity, moving parts, radiation, and usability.

The process can also be applied to products that are not necessarily medical devices in some jurisdictions and can also be used by others involved in the medical device life cycle.

This standard does not cover/apply to decisions on the use of a medical device in the context of any particular clinical procedure or business risk management.

Confirmation with Amendment

4. **Medical electrical equipment – Part 1-3: General requirements for basic safety and essential performance – Collateral Standard: Radiation protection in diagnostic X-ray equipment** (SS IEC 60601-1-3:2018) (Identical adoption of IEC 60601-1-3:2008+A1:2013)

This standard applies to the basic safety and essential performance of medical electrical equipment and systems. It also applies to X-ray equipment and to subassemblies of such equipment, where radiological images of a human patient are used for diagnosis, planning or guidance of medical procedures.

The amendment introduces changes to align this standard with the second amendment to IEC 60601-1:2005, “Medical electrical equipment – Part 1: General requirements for basic safety and essential performance”.

Users of the standards on medical devices and equipment include medical devices manufacturers and suppliers, healthcare professionals and medical device engineers, institutions of higher learning (IHLs), consultants, testing, inspection and certification (TIC) bodies, and relevant government agencies.

Withdrawal

5. **Medical electrical equipment** (SS IEC 60601)

Part 2-16: Particular requirements for basic safety and essential performance of haemodialysis, haemodiafiltration and haemofiltration equipment (SS IEC 60601-2-16:2018) (Identical adoption of IEC 60601-2-16:2018)

Part 2-39: Particular requirements for basic safety and essential performance of peritoneal dialysis equipment (SS IEC 60601-2-39:2018) (Identical adoption of IEC 60601-2-39:2018)

These standards are recommended for withdrawal as there is low industry demand and adoption.

Users can refer directly to IEC 60601-2-16:2025 and IEC 60601-2-39:2024 respectively.

Chemical

Revision

6. **Specification for elastomeric seals for joints in pipework, pipelines and fittings** (Revision of SS 270:2015)

This standard specifies the requirements and test methods for solid elastomeric joint seals for use in the jointing of pipes for potable water and drainage. It does not cover the following:

(a) Joint seals made from cellular rubber material or with an enclosed void as part of their design;
(b) Materials for joint seals used in pipelines carrying industrial chemical effluent;

(c) Performance requirements of the finished joint seals, including functional tests on actual sealing systems used with particular pipeline materials.

The main change in this revision is to include elastomeric joint seals for hot potable water.

Users of the standard include TIC bodies, consulting engineers, importers, traders, manufacturers, contractors and relevant government agencies.

(IV) Electrical and Electronic

New

7. Energy management system application program interface (EMS-API)

Part 452: CIM static transmission network model profiles (Identical adoption of IEC 61970-452:2021)

Part 453: Diagram layout profile (Identical adoption of IEC 61970-453:2018)

The standards are part of the IEC 61970-450 to 499 series that, taken as a whole, defines at an abstract level the content and exchange mechanisms used for data transmitted between control centres and/or control centre components, such as power systems applications.

Part 452 defines the subset of classes, class attributes, and associations from the common information model (CIM) necessary to execute state estimation and power flow applications.

Part 453 includes the general use cases for exchange of diagram layout data, and guidelines for linking the layout definitions with CIM data. Guidelines for management of schematic definitions through multiple revisions are also included.

Users of the standards on smart grids include energy management system equipment manufacturers and suppliers, contractors, system integrators and service providers, TIC bodies, training providers, IHLs and relevant government agencies.

8. Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications

(Identical adoption of IEC 62619:2022)

This standard specifies requirements and tests for the safe operation of secondary lithium cells and batteries used in industrial applications, including stationary applications.

The following are some examples of applications that utilise cells and batteries under the scope of this standard:

- Stationary applications: telecom, uninterruptible power supplies (UPS), electrical energy storage system, utility switching, emergency power, and similar applications.
- Motive applications: forklift truck, golf cart, automated guided vehicle (AGV), railway vehicles, and marine vehicles, except for road vehicles.

An informative annex is included to provide the users with guidelines on additional tests required for maritime industry.

9. Flow battery energy systems for stationary applications – Part 2-2: Safety requirements

(Identical adoption of IEC 62932-2-2:2020)

This standard applies to flow battery systems for stationary applications and their installations with a maximum voltage not exceeding 1 500 V DC in compliance with IEC 62932-1, “Flow battery energy systems for stationary applications – Part 1: Terminology and general aspects”.

This standard defines the requirements and test methods for risk reduction and protection measures against significant hazards relevant to flow battery systems, persons, property and the environment, or to a combination of them.

This standard is applicable to stationary flow battery systems intended for indoor and outdoor commercial and industrial use in non-hazardous (unclassified) areas.

An informative annex is included to provide the users with guidelines on additional tests relating to gas evaluation, heat shock and external short circuit of the stack.

Users of the standards on secondary cells include secondary cells, batteries and flow battery manufacturers and suppliers, energy storage system contractors and integrators, TIC bodies, training providers, IHLs and relevant government agencies.

(V) Environment and Resources

Mature

10. Energy efficiency and renewable energy sources – Comon international terminology – Part 1: Energy case efficiency (SS ISO/IEC 13273-1:2015) (Identical adoption of ISO/IEC 13273-1:2015)

11. Energy efficiency and renewable energy sources – Comon international terminology – Part 2: Renewable energy sources (SS ISO/IEC 13273-2:2015) (Identical adoption of ISO/IEC 13273-2:2015)

SS ISO/IEC 13273 series contain transversal concepts and their definitions in the subject field of renewable energy sources. These horizontal standards are primarily intended for use by technical committees in the preparation of standards in accordance with principles laid down in IEC Guide 108, “Guidelines for ensuring the coherence of IEC publications – Horizontal functions, horizontal publications and their application”.

One of the responsibilities of the technical committee is, wherever applicable, to make use of horizontal standards in preparation of its publications. The contents of these horizontal standards will apply unless specifically referred to or included in the relevant publications.

It is proposed to classify SS ISO/IEC 13273-1 and SS ISO/IEC 13273-2 as mature standards as there are no foreseeable changes to the standards. Hence, they will not be reviewed until a request is put forth to do so.

Users of the standards include organisations in the field of energy efficiency and renewable energy sources.

Withdrawal

12. Terminology for waste management (SS 594:2014)

This standard defines terms that are commonly used in waste and waste management.

This standard is recommended for withdrawal as it has been replaced by SS ISO 24161:2025.

(VI) Food

Revision

13. Guidelines on nutrition and food service for older adults (SS 604:2014)

This standard gives guidance on nutrition and food service provision for older adults and applies to all care facilities and organisations that provide food for them (including persons with disabilities) who may be nutritionally compromised or need therapeutic diets.

This standard covers the following:

a) Obligations and roles;
b) Nutrition care policy;

c) Food safety, hygiene and quality practices;
d) Donation of food items;
e) Food service practices;
f) Menu planning;
g) Food selection, preparation and portioning;
h) Food fortification;
i) Nutritional supplementation;
j) Therapeutic diet
k) Food intolerance, hypersensitivity and allergy (FIHA) management

This standard aims to ensure that older adults achieve optimal health by receiving safe, adequate and appropriate foods.

Users of the standard include food service providers, food manufacturers, caterers, caregivers, doctors, nurses, nutritionists and dietitians who operate in care facilities, hospitals and elderly homes, as well as IHLs and relevant government agencies.

(VII) <u>Manufacturing</u>

<u>New</u>

14. Enterprise-control system integration – Part 6: Messaging service model (Identical adoption of IEC 62264-6:2020)

This standard defines a technology-independent model for a set of abstract services that is located above the application layer of the open systems interconnection (OSI) model and used for exchanging transaction messages based on the transaction models defined in SS IEC 62264-5, "Enterprise-control system integration – Part 5: Business to manufacturing transactions". The model, known as the messaging service model (MSM), is intended for interoperability between manufacturing operations domain applications and applications in other domains.

15. Industrial-process measurement, control and automation – Life-cycle management for systems and components (Identical adoption of IEC 62890:2020)

This standard establishes basic principles for life-cycle management of systems and components used for industrial process measurement, control and automation. These principles are applicable to various industrial sectors. This standard provides definitions and reference models related to the life cycle of a product type and the lifetime of a product instance. It defines a consistent set of generic reference models and terms. The key models defined are:

– life-cycle model;
– structure model;
– compatibility model.

This standard also describes the application of these models for life-cycle management strategies. The content is used for technical aspects concerning the design, planning, development and maintenance of automation systems and components, and the operation of the plant.

The definitions of generic models and terms regarding life-cycle management are indispensable for a common understanding and application by all partners in the value chain, such as plant users, product and system producers, service providers, and component suppliers.

The models and strategies described in this standard are also applicable for related management systems, i.e. manufacturing execution system (MES) and enterprise resource planning (ERP).

Users of these standards on smart manufacturing include TIC bodies, industry associations, manufacturers, professional institutions, service providers, IHLs, training providers, consultancy firms and relevant government agencies.

(VIII) Safety and Quality

New

16. Information security, cybersecurity and privacy protection – Requirements for bodies providing audit and certification of information security management systems (Identical adoption of ISO/IEC 27006-1:2024)

This standard specifies requirements and provides guidance for bodies providing audit and certification of an information security management system (ISMS), in addition to the requirements in SS ISO/IEC 17021-1, "Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 1: Requirements".

The requirements in this standard are demonstrated in terms of competence and reliability by bodies providing ISMS certification. The guidance provides additional interpretation of these requirements for bodies providing ISMS certification.

17. Information security, cybersecurity and privacy protection – Requirements for bodies providing audit and certification of privacy information management systems (Identical adoption of the upcoming ISO/IEC 27706)

This standard specifies requirements and provides guidance for bodies providing audit and certification of a privacy information management system (PIMS) according to ISO/IEC 27701, "Security techniques – Extension to ISO/IEC 27001 and ISO/IEC 27002 for privacy information management – Requirements and guidelines" in combination with SS ISO/IEC 27001, "Information security, cybersecurity and privacy protection – Information security management systems – Requirements" in addition to the requirements contained within ISO/IEC 27006, "Information security, cybersecurity and privacy protection – Requirements for bodies providing audit and certification of information security management systems". It is primarily intended to support the accreditation of certification bodies providing PIMS certification.

The requirements contained in this standard need to be demonstrated in terms of competence and reliability by anybody providing PIMS certification, and the guidance provides additional interpretation of these requirements for anybody providing PIMS certification.

Users of the standards include certification bodies providing ISMS certification, PIMS certification, accreditation bodies and relevant government agencies.

NOTE –
i. Draft SS ISO/IEC 27706 is currently based on the Draft International Standard but the final adoption will be based on the published ISO/IEC standard which is targeted to be published in 2025.
ii. Comments received will be considered by the national committee responsible for Singapore's inputs to the ISO/IEC standards and where appropriate, taken on for international consideration.

Revision

18. Gas cylinders – Refillable welded steel cylinders – Test pressure 60 bar and below – Specification for liquefied petroleum gases (LPG) (Revision of SS 99:1998(2011)) (Modified adoption of ISO 4706:2023)

This standard specifies the minimum requirements concerning material selection, design, construction and workmanship, procedure, and test at manufacture of refillable welded-steel gas cylinders of water capacities from 0.5 ℓ up to and including 150 ℓ of a test pressure not greater than 60 bar, exposed to extreme worldwide temperatures (−50 °C to +65 °C) used for only liquefied petroleum gas (LPG).

19. **Gas cylinders – Vocabulary** (Revision of SS ISO 10286:2017) (Identical adoption of upcoming ISO 10286)

This standard defines terms for gas cylinders.

NOTE –
i. Draft SS ISO 10286 is currently based on the Draft International Standard but the final adoption will be based on the published ISO standard which is targeted to be published in 2025.
ii. Comments received will be considered by the national committee responsible for Singapore's inputs to the ISO standards and where appropriate, taken on for international consideration.

Users of the standards on gas cylinders include manufacturers, suppliers, TIC bodies and relevant government agencies.

Confirmation

20. **Risk management – Guidelines** (SS ISO 31000:2018) (Identical adoption of ISO 31000:2018)

This standard provides guidelines on managing risk faced by organisations. The application of these guidelines can be customised to any organisation and its context.

This standard provides a common approach to managing any type of risk and is not industry or sector specific. This standard can be used throughout the life of the organisation and can be applied to any activity, including decision-making at all levels.

Users of the standard include industry associations, professional institutions, training providers, IHLs, and relevant government agencies.

Copies of the draft are available at:

Viewing from Singapore Standards eShop
Login to Singapore Standards eShop at: www.singaporestandardseshop.sg
[Login ► Go to Standards (3 bars for mobile users) ► Singapore Standards ► View Singapore Standards ► Under Product Type select 'All' ► Under Product Status select 'Draft' ► Search for the draft ► Add to shopping cart and check out ► Download draft.

Viewing Singapore Standards from Public Libraries
Singapore Standards are viewable multimedia stations at all Public Libraries via NLB databases "Singapore Standards Collection" at https://reference.nlb.gov.sg/guides/sci-tech/tech/standards-and-references/ Please refer to https://www.nlb.gov.sg/main/visit-us for address and viewing hours.

Purchase of Singapore Standards
TOPPAN NEXT Pte. Ltd.
Customer Service Hotline: (65) 6826 9691
Email: singaporestandardseshop@toppannext.com
Operating Hours:
Mon to Fri: 9.30 am to 6.00 pm
Closed on Saturdays, Sundays and Public Holidays

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

B) Notification of the Work Item Proposals

B.1 Proposal for New Work Items

(I) Chemical

1. Code of practice for bunker sampling

This standard specifies requirements for sampling procedures to obtain bunker samples from the sampling point into the primary container, recommended sampling equipment and sealing requirements in ship-to-ship bunkering. The standard also provides additional specific information about sample container selection, preparation, sample handling and preservation.

The standard does not apply to cargo sampling and is to be used in conjunction with SS 600, "Code of practice for bunkering by bunker tankers using tank gauging", SS 648, "Code of practice for bunker mass flow metering", and TR 129, "Methanol bunkering" for sampling procedures and requirements to ascertain fuel quality.

Users of the standard include bunker suppliers, bunker craft operators, bunker buyers, bunker surveyors, industry associations for shipping/bunkering and relevant government agencies.

(II) Safety and Quality

2. Risk management – Guidelines for managing an emerging risk to enhance resilience (Identical adoption of ISO/TS 31050:2023)

This standard gives guidance on managing emerging risks that an organisation can face. It complements SS ISO 31000, "Risk management – Guidelines". It is applicable to any organisation, at any stage and to any activity of the organisation. Its application can be customised to suit different organisations or the context of different organisations.

Users of the standard include industry associations, professional institutions, training providers, IHLs and relevant government agencies.

B.2 Proposal for the Review of Singapore Standards

(I) Chemical

1. Code of practice for fire safety for laboratories using chemicals (SS 641:2019)

This standard specifies requirements and recommendations for the fire safety of laboratories using chemicals. The standard covers the safe use, handling, storage and disposal of flammable liquids, compressed and liquefied gases. It also covers fire safety requirements in terms of laboratory unit design and construction, fire protection, explosion hazard protection, ventilating system requirements as well as the storage, handling and disposal of flammable chemicals. Toxic and hazardous chemicals are also included due to their potential impact on fires

The standard is reviewed with the intention to update it.

Users of the standard include laboratories located within manufacturing facilities (e.g. petrochemical, pharmaceutical, gas manufacturing), IHLs, research entities, healthcare sector, laboratory equipment suppliers, fire safety managers, health and safety professionals, facility managers and consultants (e.g. QP, M&E engineers, fire safety engineers).

(II) ***Environment and Resources***

2. **Specification for different grades of industrial recycled water from refineries, and petrochemical, chemical and utility plants** (SS 627:2017)

This standard specifies the requirements for the different grades of industrial recycled water that has been treated from the process and non-process wastewater streams arising from refineries, and petrochemical, chemical and utility plants. It covers the possible uses of industrial recycled water from these plants, and the proper disposal and discharge of the residual waste generated from the wastewater treatment plants.

The standard is reviewed with the intention to update it to ensure its relevance to current industry needs and practices, e.g. considerations for cybersecurity and energy savings.

Users of the standard include those in the petrochemical, refinery and chemical manufacturing, utilities, water treatment technology sectors, solution providers, research institutes, and relevant government agencies.

(III) ***Safety and Quality***

3. **Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 7: Competence requirements for auditing and certification of road traffic safety management systems** (TR ISO/IEC TS 17021-7:2017) (Identical adoption of ISO/IEC TS 17021-7:2014)

This standard complements the existing requirements of SS ISO/IEC 17021-1:2015. It includes specific competence requirements for personnel involved in the certification process for road traffic safety (RTS) management systems.

The standard is reviewed with the intention to withdraw it. Users can refer directly to ISO/IEC TS 17021-7:2014.

Users of the standard include certification bodies providing RTS management system certification, accreditation bodies, 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 NEXT 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 public comment form provided by Enterprise Singapore?

The public comment form enables 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.