SPRING SINGAPORE CALLS FOR PUBLIC COMMENTS – 12 MAY 2017

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

A) Notification of Draft Singapore Standards for Publications

Members of the public are invited to comment on the following document:

(I) Chemical – Bituminous emulsion for roof waterproofing

(II) Information Technology – cloud outage incident response

For more information on viewing the documents, click here.

Closing date for comments: 13 July 2017.

To provide comments, please write to: kay_chua@spring.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 Technical References (pre-standards).

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:

(I) Biomedical and Health – Biological evaluation of medical devices

(II) Energy – Rotating electrical machines, industrial furnaces and associated processing equipment, compressed air, pump systems, fans

(III) Conformity assessment and food safety management system

The NWIs are work in progress and the drafts are not available at this juncture.

Closing date for comments: 13 June 2017

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

To comment or to join in the development of standards, please write to: standards@spring.gov.sg.
B.2 Proposal for the Review of Singapore Standards (SS)

Published Singapore Standards are reviewed to determine if they should be updated, confirmed or withdrawn (if they no longer serve the industry’s needs) or classified as mature standards (no foreseeable changes; to be reviewed only upon request).

Members of the public are invited to comment on the scope and contents of the following standards to be reviewed.

(I) Building and Construction – Eurocode 3 Design of steel structures

(II) Quality and Safety – Safe loading on vehicles, fluid power systems and components, graphic symbols, slip resistance classification of pedestrian surface materials

The reviews are work in progress and new versions/drafts are not available at this juncture. Users can refer to the current SS to provide feedback. For more information on viewing and purchase of current SS, click here.

Closing date for comments: 13 June 2017.

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

To provide comments or to join in the development of standards, please write to: kay_chua@spring.gov.sg.

A) Notification of draft Singapore Standards

(I) Chemical


This standard covers bituminous emulsions capable of being sprayed on or brush-applied in relatively thick films as part of a waterproofing system for roof surfaces having inclines of not less than 1 in 70.

This revision has been prepared principally to bring the standard in line with international standards and to update the test methods.

The potential users of the standard may include manufacturers and bitumen suppliers, coating suppliers, testing laboratories, contractors, architects, engineers and relevant government agencies.

(II) Information Technology

2. *Guidelines for cloud outage incident response (COIR)*

This standard specifies a tiered framework for COIR and provides guidance on handling cloud outages for cloud service customers (CSCs) and the cloud service providers (CSPs). The guidelines specified in this standard focus on cloud outage directly associated with operational mistakes, infrastructure or system failure and environmental issues (e.g. flooding, fire). The CSCs could also experience a varying degree of outage severity from limited usage, loss of functionality, cloud service degradation or unavailability of cloud services, etc. These guidelines are primarily meant to serve the outage management needs of all types of cloud service customers. It is applicable to all types of cloud service models as well as cloud deployment models.
This standard complements the ISO/IEC 19086 series of standards with the generic title “Information technology – Cloud computing – Service level agreement (SLA) framework” and is intended to assist CSCs when they compare cloud services from different CSPs.

The potential users of this standard are the CSCs, CSPs and regulators.

Copies of drafts and standards are available at:

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NOTE – The viewing period of the drafts will expire on the closing of the 2-month public comments. Drafts will no longer be available after this date.

B) Notification of New Work Item Proposals

B.1 Proposal for New Work Items

(I) Biomedical and Health

1. Biological evaluation of medical devices

Part 1: Evaluation and testing within a risk management process (Identical adoption of ISO 10993-1:2009)

This standard describes the general principles governing the biological evaluation of medical devices within a risk management process.

It does not cover testing of materials and devices that do not come into direct or indirect contact with the patient's body, nor does it cover biological hazards arising from any mechanical failure.

Part 3: Tests for genotoxicity, carcinogenicity and reproductive toxicity (Identical adoption of ISO 10993-3:2009)

This standard specifies strategies for risk estimation, selection of hazard identification tests and risk management, with respect to the possibility of the following potentially irreversible biological effects arising as a result of exposure to medical devices:

- genotoxicity;
- carcinogenicity;
- reproductive and developmental toxicity.
Part 4: Selection of tests for interactions with blood (Identical adoption of ISO 10993-4:2002)

This standard provides general requirements for evaluating the interactions of medical devices with blood.


This standard describes test methods to assess the in vitro cytotoxicity of medical devices. These methods specify the incubation of cultured cells in contact with a device and/or extracts of a device either directly or through diffusion. These methods are designed to determine the biological response of mammalian cells in vitro using appropriate biological parameters.


This standard specifies test methods for the assessment of the local effects after implantation of biomaterials intended for use in medical devices. It applies to materials that are:

- solid and non-biodegradable;
- degradable and/or resorbable;
- non-solid, such as porous materials, liquids, pastes and particulates.

This standard does not deal with systemic toxicity, carcinogenicity, teratogenicity or mutagenicity.

Part 10: Tests for irritation and skin sensitization (Identical adoption of ISO 10993-10:2010)

This standard describes the procedure for the assessment of medical devices and their constituent materials with regard to their potential to produce irritation and skin sensitization.


This standard specifies requirements and gives guidance on procedures to be followed in the evaluation of the potential for medical device materials to cause adverse systemic reactions.


This standard specifies requirements and gives guidance on the procedures to be followed in the preparation of samples and the selection of reference materials for medical device testing in biological systems in accordance with one or more parts of ISO 10993.

This standard is not applicable to live cells, but can be relevant to the material or device components of combination products containing live cells.

Potential users of the standards on biological evaluation of medical devices may include companies expanding into medical technology, medical technology start-ups, research institutes and institutes for higher learning.

(II) Energy

2. Rotating electrical machines

Part 1: Rating and performance (Adoption of IEC 60034-1:2010)

The standard is applicable to all rotating electrical machines except those covered by other IEC standards. Machines within the scope of this standard may also be subject to superseding, modifying or additional requirements in other IEC publications.
Part 30-1: Efficiency classes of line operated AC motors (Adoption of IEC 60034-30-1:2014)

The standard specifies efficiency classes for single-speed electric motors that are rated according to IEC 60034-1 for operation on a sinusoidal voltage supply. It establishes a set of limit efficiency values based on frequency, number of poles and motor power. No distinction is made between motor technologies, supply voltage or motors with increased insulation designed specifically for converter operation even though these motor technologies may not all be capable of reaching the higher efficiency classes. This makes different motor technologies fully comparable with respect to their energy efficiency potential.

Part 31: Selection of energy-efficient motors including variable speed applications – Application guide (Adoption of IEC/TS 60034-31:2010)

The standard provides a guideline of technical aspects for the application of energy-efficient, three-phase, electric motors. It is applicable to all electrical machines covered by IEC 60034-30. Most of the information however is also relevant for cage-induction machines with output powers exceeding 375 kW.

3. Industrial furnaces and associated processing equipment – Method of measuring energy balance and calculating efficiency – General methodology (Adoption of ISO 13579-1:2013)

The standard specifies a general methodology for measuring energy balance and calculating the efficiency of the process involving industrial furnaces and associated processing equipment. The general methodology includes common principles of energy balance and efficiency, measurement methods, calculations, records and evaluations.


The standard sets requirements for conducting and reporting the results of a compressed air system assessment that considers the entire system, from energy inputs to the work performed as the result of these inputs. It provides a common framework for the compressed air system energy efficiency assessment and auditing process.

5. Pump system energy assessment (Adoption of ISO/ASME 14414 : 2015)

The standard sets the requirements for conducting and reporting the results of a pumping system energy assessment that considers the entire pumping system, from energy inputs to the work performed as the result of these inputs. It focuses on assessing electrically-driven pumping systems, which are dominant in most facilities, but is applicable with other types of drivers, such as steam turbines and engines, and drives such as belt. The objective of a pumping system energy assessment is to determine the current energy consumption of an existing system and identify ways to improve system efficiency.


The standard specifies requirements for classification of fan efficiency for all fan types driven by motors with an electrical input power range from 0.125 kW to 500 kW. It is applicable to bare shaft and driven fans, as well as fans integrated into products. Fans integrated into products are measured as stand-alone fans.

The above standards are applicable to companies that wish to install more energy-efficient equipment. They will also apply to energy service companies (ESCOs) and energy managers that will need to use the standards to perform energy assessments to enhance energy efficiency for industrial premises.

This standard specifies general terms and definitions relating to conformity assessment, including the accreditation of conformity assessment bodies, and to the use of conformity assessment to facilitate trade. A description of the functional approach to conformity assessment is included as a further aid to understanding among users of conformity assessment, conformity assessment bodies and their accreditation bodies, in both vocabulary and regulatory environments.


This standard provides principles and guidance for developing normative documents that contain:

- specified requirements for objects of conformity assessment to fulfil;
- specified requirements for conformity assessment systems that can be employed when demonstrating whether an object of conformity assessment fulfils specified requirements.

9. **Conformity assessment – General requirements for accreditation bodies accrediting conformity assessment bodies** (Identical adoption of the upcoming ISO/IEC 17011)

This standard specifies requirements for the competence, consistent operation and impartiality of accreditation bodies assessing and accrediting conformity assessment bodies.

NOTE 1 – in the context of this standard, activities covered by accreditation include but are not limited to testing, calibration, inspection, certification of management systems, persons, products, processes and services, provision of proficiency testing, production of reference materials and validation & verification.

10. **Conformity assessment – Requirements for the operation of various types of bodies performing inspection** (Identical adoption of ISO/IEC 17020:2012)

This standard contains requirements for the competence of bodies performing inspection and for the impartiality and consistency of their inspection activities.

11. **Conformity assessment – Requirements for bodies providing audit and certification of management systems**

**Part 4: Competence requirements for auditing and certification of event sustainability management systems** (Identical adoption of ISO/IEC TS 17021-4:2013)

This Technical Reference complements the existing requirements of ISO/IEC 17021:2011. It specifies additional requirements for personnel involved in the audit and certification process for event sustainability management systems (ESMS).

**Part 5: Competence requirements for auditing and certification of asset management systems** (Identical adoption of ISO/IEC TS 17021-5:2014)

This Technical Reference complements the existing requirements of ISO/IEC 17021:2011. It specifies additional requirements for personnel involved in the certification process for asset management systems.

**Part 6: Competence requirements for auditing and certification of business continuity management systems** (Identical adoption of ISO/IEC TS 17021-6:2014)

This Technical Reference complements the existing requirements of ISO/IEC 17021:2011. It specifies additional requirements for personnel involved in the certification process for business continuity management systems (BCMS).
Part 7: Competence requirements for auditing and certification of road traffic safety management systems (Identical adoption of ISO/IEC TS 17021-7:2014)

This Technical Reference complements the existing requirements of ISO/IEC 17021:2011. It specifies additional requirements for personnel involved in the certification process for road traffic safety (RTS) management systems.


This Technical Reference provides guidelines for determining the duration of management system certification audits, to the bodies providing audit and certification of management systems and to those that develop and maintain certification schemes.


This standard contains principles and requirements for a body certifying persons against specific requirements, and included the development and maintenance of a certification scheme for persons.


This Technical Reference provides an example of a type 5 product certification scheme for tangible products as described in ISO/IEC 17067, “Fundamentals of product certification and guidelines for product certification schemes”.


This Technical Reference specifies terms and definitions related to the competence of persons used in the field of certification of persons, in order to establish a common vocabulary. These terms and definitions can also be used as applicable in other documents specifying competence of persons, such as regulations, standards, certification schemes, research, training, licensing and registration.

16. Conformity assessment – Guidelines and examples of a certification scheme for services (Identical adoption of the upcoming ISO/IEC PRF TR 17028)

This Technical Reference provides guidelines, principles and examples of service certification schemes. It also contains examples of existing certification schemes for services.


This standard provides general requirements for third-party marks of conformity, including the issue and use.

18. General requirements for the competence of reference material producers (Identical adoption of ISO 17034:2016)

This standard specifies general requirements for the competence and consistent operation of reference material producers.

This standard sets out the requirements in accordance with which reference materials are produced. It is intended to be used as part of the general quality assurance producers of the reference material producer.

This standard covers the production of all reference materials, including certified reference materials.

This standard specifies the general requirements for the peer assessment process to be carried out by the agreement groups of accreditation bodies or conformity assessment bodies. It addresses the structure and operation of the agreement group only insofar as they relate to the peer assessment process.

This standard is not concerned with the wider issues of the arrangements for the formation, organization and management of the agreement group, and does not cover how the group will use peer assessment in deciding membership of the group. Such matters, which could for example include a procedure for applicants to appeal against decisions of the agreement group, are outside the scope of this standard.

20. **Conformity assessment – General requirements for proficiency testing** (Identical adoption of ISO/IEC 17043:2010)

This standard specifies general requirements for the competence of providers of proficiency testing schemes and for the developments and operation of proficiency testing schemes. These requirements are intended to be general for all types of proficiency testing schemes, and they can be used as a basis for specific technical requirements for particular fields of application.

21. **Conformity assessment – Supplier’s declaration of conformity**


This standard specifies general requirements for a supplier’s declaration of conformity in cases where it is desirable, or necessary, that conformity of an object to the specified requirements be attested, irrespective of the sector involved.


This standard specifies general requirements for supporting documentation to substantiate a supplier’s declaration of conformity, as described in ISO/IEC 17050-1.

22. **Conformity assessment – Requirements for bodies certifying products, processes and services** (Identical adoption of ISO/IEC 17065:2012)

This standard contains requirements for the competence, consistent operation and impartiality of product, process and service certification bodies. Certification bodies operating to this standard need not offer all types of products, processes and services certification. Certification of products, processes and services is a third-party conformity assessment activity.


This standard describes the fundamentals of product certification and provides guidelines for understanding, developing, operating or maintaining certification schemes for products, processes and services.

Potential users of these conformity assessment standards include manufacturers, regulators, traders, importers, exporters, TIC (testing, inspection and conformity) players and conformity assessment bodies. These standards are also used as a basis for evaluation of accreditation body, certification bodies, laboratories and inspection bodies for entry into the Mutual Recognition Agreement (MRA). Singapore Accreditation Council also uses the standards to accredit the certification bodies and laboratories.
24. **Food safety management systems – Requirements for bodies providing audit and certifications of food safety management systems** (Identical adoption of ISO/TS 22003:2013)

This Technical Reference defines the rules applicable for the audit and certification of a food safety management system (FSMS) complying with the requirements given in ISO 22000 (or other sets of specified FSMS requirements). It also provides the necessary information and confidence to customers about the way certification of their suppliers has been granted.

Certification of FSMS is a third-party conformity assessment activity, and bodies performing this activity are third-party conformity assessment bodies.

Potential users of this standard are certification bodies. Singapore Accreditation Council also uses it to accredit the certification bodies.

Copies of the drafts are not available at this juncture.

**B.2 Review of Singapore Standards**

(I) **Building and Construction**

1. **Eurocode 3 Design of steel structures (SS EN 1993 series) and the Singapore National Annexes (NA)**

   Part 3-1: 2011 Towers, masts and chimneys – Tower and masts (including the Singapore NA to SS EN 1993-3-1)
   Part 3-2: 2011 Towers, masts and chimneys – Chimneys
   Part 4-1: 2011 – Silos
   Part 4-2: 2011 – Tanks
   Part 4-3: 2010 – Pipelines
   Part 6: 2010 – Crane supporting structures (including the Singapore NA to SS EN 1993-6)

   The SS EN 1993 series applies to the design of buildings and civil engineering works in steel. It complies with the principles and requirements for the safety and serviceability of structures, the basis of their design and verification that are given in SS EN 1990 – Basis of structural design.

   The standards will be reviewed with the intent to confirm them as there are no changes to the EN standards which Singapore has adopted.

   Users of the above standards include consultants, contractors, government agencies, regulatory bodies, professional engineers, suppliers, manufacturers, tertiary institutions and testing / accreditation bodies.

(II) **Quality and Safety**

2. **Code of practice for safe loading on vehicles** (CP 30 : 1985)

   The standard provides transport operators, drivers and loading staff with guidance as to the basic safety principles that must be followed generally, and to some particular precautions that can be taken to ensure the safe carriage of several of the more common types of load.

   Users of the standard include those involved in the logistics, transport, construction and manufacturing industries and suppliers, contractors, industry associations, academia and relevant government agencies.

   This standard establishes principles for the use of symbols and specifies basic symbols and rules for devising functional symbols. It also includes examples of functional symbols.

   Users of the standard include manufacturers and suppliers, professional engineers, industry associations, academia, testing laboratories and relevant government agencies.

   The standard is reviewed with the intention to withdraw the standard.


   This standard provides means of classifying pedestrian surface materials according to their frictional characteristics when determined in accordance with the test methods. These test methods enable characteristics of surface materials to be determined in either wet or dry conditions. Pedestrian surfaces include public trafficable areas.

   This standard does not cover industrial work area where the public is generally excluded. There may be an increased risk of slipping on floors of industrial work area due to a high incidence of substances such as grease, oil, water, dust or other perishable waste or residues. This standard does not cover carpets.

   Users of the standard include manufacturers and suppliers, architects, professional engineers, consultants, contractors, developers, industry associations, academia, testing laboratories and relevant government agencies.
Frequently asked questions about public comment on Singapore Standards:

1. **What is public comment?**

   Singapore Standards are established based on an open system which is also in accordance with the World Trade Organisation requirements. These documents are issued as part of a consultation process before any standards are introduced or reviewed. This important stage in the development of Singapore Standards is the Public Comment period. This mechanism helps industry, companies and other stakeholders be aware of forthcoming changes to Singapore Standards and provide 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 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 the National Library Board at the addresses given above. 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. **What happens after I have submitted my comments?**

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

5. **Can I view drafts after the public comment period?**

   Drafts will not be available after the public comment period.

6. **How do I request for a new standard?**

   You can inform us of your standardisation needs by completing the Proposal Form at [Apply for a Standard](#).