Procedure to assess if a regional or national standard can be deemed to satisfy ISO 19338:—

1 Introduction

Concrete is the most popular material used in the construction market. Presently, about one-third of a ton of concrete is produced each year for every human being in the world (some 2 billion tons per year).

International Standards on concrete technology can play a significant role for improving the global trade climate. International Standards in the field of concrete and its use in civil infrastructure are ever more needed as the economic development of the world continues.

ISO/TC 71/SC 4 was established to develop standards for performance requirements for structural concrete.

For example, ISO 19338:— gives the performance and assessment requirements for design standards on concrete structures. It is an umbrella type International Standard with general provisions and guidelines, intended to provide wide latitude in choice in terms of general requirements for performance and assessment of concrete structures, and recommended to be used with sound engineering judgment.

This document defines the procedure, agreed by ISO/TC 71/SC 4 and further approved by ISO/TC 71, to assess whether a national or regional standard can be deemed to satisfy ISO 19338:—. It also gives the list of national and regional standards that so far have gone through the procedure and are deemed to satisfy ISO 19338:—. These national and regional standards are generally more prescriptive in nature than International Standards and vary somewhat from region to region.

2 Procedure to assess if a regional or national standard can be deemed to satisfyISO 19338:—

2.1 Initial "deemed to satisfy" procedure

a) A country (or regional body) should submit its standard to the Secretariat of ISO/TC 71/SC 4 for review by a panel representing at least three countries. The submittal should be made at least 6 months prior to the scheduled meeting of ISO/TC 71.

a) The submitting country (or regional body) may recommend potential panel member countries for the consideration of the secretariat. The panel will be selected by the secretariat having given due consideration to the countries nominated by the submitting organization.

b) No member of the review panel may represent the submitting country or organization. Reviewers will be selected from P-member countries of ISO TC 71/SC 4.

c) The submittal should include a minimum of four copies of the national or regional standard plus one copy of other supporting documents. The submittal should also include a completed checklist identifying how each of the criteria in ISO 19338 is addressed in the national or regional standard.

d) If the standard submitted is in English (or has an accompanying English translation), each member of the review panel should finalize their review within a period of 3 months after receiving the document. The review reports should be submitted to the secretariat of ISO TC 71/SC 4 for forwarding to the submitting country or organization. The national or regional standards organization may submit a response to the secretariat addressing any outstanding issues raised by the reviewers. The response should reach the office of the secretariat at least 4 weeks prior to the meeting of the SC.

e) As an alternative, if the standard is not submitted in English, or with an accompanying English translation, the submittal should include both the checklist and documentation (in English) explaining how the standard meets the requirements of ISO 19338.

f) The reviewers may recommend an oral presentation in conjunction with a scheduled meeting of ISO TC 71/SC 4 before a final recommendation is made. As a guideline, the presentation should not exceed 1 h, with a further hour for questions and answers.

g) Reviewed submissions will be discussed at the meeting of ISO/TC 71/SC 4 for a recommendation to ISO TC 71.

h) ISO TC 71 will consider the recommendations of ISO TC 71/SC 4 and, on a successful vote, will letter ballot ISO TC 71 member countries. After a successful completion of the process, the standard will be approved and will be listed as a standard deemed to satisfy ISO 19338.

2.2 Updating standards "deemed to satisfy"

a) A country (or regional body) should submit all updates and changes to its standard to the Secretariat of ISO/TC 71/SC 4 for review by a panel representing at least three countries. The submittal should be made at least 3 months prior to the scheduled meeting of ISO/TC 71.

b) The submitting country (or regional body) may recommend potential panel member countries for the consideration of the secretariat. The panel will be selected by the secretariat having given due consideration to the countries nominated by the submitting organization.

c) No member of the review panel may represent the submitting country or organization. Reviewers will be selected from P-member countries of ISO TC 71/SC 4.

d) The submittal should include a minimum of four copies of changes to the national or regional standard plus one copy of other supporting documents. The submittal should also include a completed checklist identifying if there were changes to how each of the criteria in ISO 19338 is addressed in the national or regional standard.

e) If the standard submitted is in English (or has an accompanying English translation), each member of the review panel should finalize their review within a period of 2 months after receiving the document. The review reports should be submitted to the secretariat of ISO TC 71/SC 4 for forwarding to the submitting country or organization. The national or regional standards organization may submit a response to the secretariat addressing any outstanding issues raised by the reviewers. The response should reach the office of the secretariat at least 2 weeks prior to the meeting of the SC.

f) As an alternative, if the standard is not submitted in English, or with an accompanying English translation, the submittal should include both the changes and documentation (in English) explaining how the changes to the standard meet the requirements of ISO 19338.

g) The reviewers may recommend an oral presentation in conjunction with a scheduled meeting of ISO TC 71/SC 4 before a final recommendation is made. As a guideline, the presentation should not exceed 1 h, with a further hour for questions and answers.

h) Reviewed submissions will be discussed at the meeting of ISO/TC 71/SC 4 for a recommendation to ISO TC 71.

i) ISO TC 71 will consider the recommendations of ISO TC 71/SC 4 and, on a successful vote, will letter ballot ISO TC 71 member countries. After a successful completion of the process, the standard will be approved and will be listed as a standard deemed to satisfy ISO 19338.

3 National and regional standards "deemed to satisfy" ISO 19338:—

3.1 American Concrete Institute standards

ACI 318-14, *Building Standards Requirements for Structural Concrete*, 520 pp., American Concrete Institute, Farmington Hills, Michigan, 48331, USA.

ACI 343R-95, *Analysis and Design of Reinforced Concrete Bridge Structures*, 158 pp., American Concrete Institute, Farmington Hills, MI, 48331, USA.

3.2 European standards

EN 1992-1-1, *Eurocode 2: Design of concrete structures — Part 1: General rules and rules for buildings,* 198 pp., CEN, Brussels.

3.3 Japanese standards

AIJ Standard for Structural Calculation of Reinforced Concrete Structures, 2010, 526 pp., Architectural

Institute of Japan, Tokyo 108-8414, Japan (in Japanese). *AIJ Standard for Structural Design and Construction of Prestressed Concrete Structures*, 1998, 473 pp., Architectural Institute of Japan, Tokyo 108-8414, Japan (in Japanese).

Standard Specifications for Concrete Structures-2007, Japan Society of Civil Engineers, Tokyo, 160-0004, Japan:

 Design (Japanese version, 623 pp.; English version, 469 pp.). *Materials and Construction* (Japanese version, 435 pp.; English version, 490 pp.).

3.4 Australian standards

AS 3600:2001, *Concrete Structures*, 176 pp., Standards Australia, Sydney, NSW, Australia.

3.5 Colombian standards

Colombian Code — National Structural Concrete Standards; included in NSR-98, *Colombian Code for Earthquake Resistant Design and Construction*, 228 pp. Asociación Colombiana de Ingeniería Sísmica, Bogotá, Colombia.

3.6 Saudi Arabian standards

SB 304, *Saudi Building Code: Concrete Structures* L.D. No. 1428/1200, 2007, 246 pp., National Committee, Riyadh, Saudi Arabia.

3.7 Brazilian standards

NBR 6118:2014, *Design of Structural Concrete — Procedure*, 2014, 238 pp., Associação Brasileira de Normas Técnicas, Rio de Janeiro, Brazil.

3.8 Egyptian standards

ECP 203, *Egyptian Code for the Design and Construction of concrete Structures, limit states design method*, 2007, 375 pp., Housing and Building National Research Center, Cairo, Egypt.

3.9 Korean standards

Structural Concrete Design Code 2012, 599 pp., Korea Concrete Institute, Seoul, 06130, Republic of Korea.