

## GG202-14

### 505.2, 505.2.1, 505.2.2, 505.2.3, 505.2.4, 505.2.5, 505.2.6 (New)

**Proponent:** John Woestman, Kellen Company, representing Extruded Polystyrene Foam Association (XPSA) (jwoestman@kellencompany.com)

#### Delete and substitute as follows:

505.2 Material selection. Not less than 20 different permanently installed materials or products from not less than five different manufacturers shall comply with one or more of the following sections: 505.2.1, 505.2.2, 505.2.3, 505.2.4, 505.2.5 or 505.2.6.

~~Not less than 55 percent of the total building materials used in the project, based on mass, volume or cost, shall comply with Section 505.2.1, 505.2.2, 505.2.3, 505.2.4 or 505.2.5. Where a material complies with more than one section, the material value shall be multiplied by the number of sections that it complies with. The value of total building material mass, volume or cost shall remain constant regardless of whether materials are tabulated in more than one section.~~

#### Add new text as follows:

505.2.6 Building materials and products with a Type III Environmental Product Declaration. The Type III Environmental Product Declaration (based on externally verified data shall be certified by an approved agency in accordance with CAN/CSA-ISO 14025 and ISO 21930.

#### Add new standard(s) as follows:

##### CSA

CAN/CSA-ISO 14025:07(R2012) Environmental labels and declarations – Type III environmental declarations – Principles and procedures(Adopted ISO 14025:2006, first edition, 2006-07-01)

##### ISO

21930:2007 Sustainability in building construction – Environmental declaration of building products

**Reason:** Section 505 currently recognizes individual product attributes for used, recycled, recyclable, bio- based and indigenous categories. It does not recognize products that have undergone a full life cycle assessment of their product to develop an Environmental Product Declaration (EPD).

This code change proposal adds EPDs, which have the advantage of capturing the environmental impacts across all phases of a product life cycle. It provides recognition to product manufacturers who have undertaken the time and expense to examine their environmental impact upstream and downstream of their manufacturing process. EPDs encourage manufacturers to reduce their environmental impacts.

CAN/CSA-ISO 14025 is the reference standard for EPDs. ISO 21930 is a companion standard to ISO 14025, and specifies the declaration of environmental impacts such as:

- Global warming potential
- Depletion of the upper ozone layer
- Acidification of land and water sources
- Smog formation
- Excess nutrient formation in water bodies (eutrophication)
- Use of renewable and non-renewable material resources and energy
- Hazardous waste
- Freshwater consumption

The majority of building products EPDs include these impacts. The building official enforcing this new language need only request an EPD from an approved agency, to ensure EPD conformance to the ISO standards. The agency (Program Operator as defined in the ISO standards), is responsible to ensure that the life cycle practitioners and personnel involved in the development of Product Category Rules and certification of the EPD have sufficient expertise and have followed the appropriate procedures.

At the time of this submission, ANSI has launched an accreditation program for organizations that certify EPDs. The accreditation program will ensure that the Program Operator has the appropriate documentation and procedures to act as a certification body to the referenced standards.

The weighting criteria in the charging section of Section 505.2 has been simplified to require a minimum of 20 different permanently installed materials or products from a minimum of five different manufacturers to comply with one or more of the six sections. This language was adapted from MR credits in LEED version 4. This greatly simplifies compliance – there is no need to calculate percentages or double count materials for more than one section. For example, a designer could submit 20 certified EPDs for the project and the code official would only need to verify that the Program Operator is accredited and that the EPD is referenced in a current listing.

This proposal increases the transparency of building materials and product environmental impacts and simplifies compliance.

**Cost Impact:** Will not increase the cost of construction. This code change proposal will not increase the cost of construction but will involve costs to the manufacturer who voluntarily obtains an EPD for their building product.

**Analysis:** A review of the standards proposed for inclusion in the code, CAN/CSA-ISO 14025:07(R2012) and ISO21930:2007 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28), will be posted on the ICC website on or before April 1, 2014.

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