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CCMC NEWS

CCMC's Product Identification Policy

Effective 31 August 1993, CCMC evaluations apply only to products which display the appropriate CCMC number.

NRC's Canadian Construction Materials Centre has adopted a new policy governing the identification of CCMC-evaluated construction products. This policy is based on recommendations made by the Canadian Commission on Construction Materials Evaluation at its last meeting.

Effective 31 August 1993, CCMC evaluations (the results published in CCMC evaluation reports and listings) apply only to products which display the appropriate CCMC number. Unless a CCMC number appears on a product or its packaging, NRC does not guarantee that the product has been evaluated by CCMC. If a CCMC number is shown, users are still encouraged to verify its validity, and the scope of the evaluation to which it refers, by looking it up in CCMC's Registry of Product Evaluations or by calling (613) 993-6189. Manufacturers of evaluated products have been advised that references to CMHC (Canada Mortgage and Housing Corporation) numbers are no longer valid and should be deleted. CMHC references on products or promotional literature should be disregarded.

continued on page 4



Registry of Product Evaluations Now Available

To improve user access to Canada's official compendium of evaluated construction products, CCMC has reformatted all currently valid evaluation reports and listings into a single source document. A low cost production approach permits us to make it available to those who need it free of charge.

Our new document, "Registry of Product Evaluations," is conveniently sized for travel to construction sites and contains references to hundreds of evaluated construction products, all classified numerically according to the 16-division North American Masterformat system. It will be updated semi-annually. The new Registry should become an indispensable tool for every building official, designer and contractor who needs to know if construction products actually conform to Canadian codes and standards.

To receive a free subscription to the Registry of Product Evaluations, please contact IRC's Client Services at (613) 993-1231, fax: (613) 952-7673. ♦



Evaluation of Prefabricated Wood I-Joists

These products are "proprietary" and are not all created equal.

With the ever increasing popularity of prefabricated wood I-joists, most building officials have come across these products at one time or another on a project. In most cases, the building official has also realized that these products are "proprietary" and are not all created equal. Building officials rely on CCMC evaluation reports to verify that a prefabricated wood I-joist meets the intent of the National Building Code (NBC).

As prefabricated wood I-joists are not specified in Part 9 of the NBC, CCMC sets out to verify equivalent performance for 'structural' adequacy as per Article 2.5.1.2. No Canadian standard exists for these products, so CCMC has developed a Technical Guide for their evaluation. There are essentially three main phases in the evaluation: (i) establishing the products' properties with the same confidence level as sawn lumber, (ii) verifying the design of floors and roofs (i.e., span tables) for anticipated loads and (iii) ensuring in-plant third-party certification to maintain established properties. CCMC will also verify that adhesives used in the manufacture of the joists meet the CSA O112 standard for structural adhesives or meet the intent of the standard for adhesives not covered by the standard.

To ensure consistency in establishing the wood I-joists' properties, structural capacities must be established in accordance with ASTM 5055-90, "Standard Specification for Establishing and Monitoring Structural Capacities of Prefabricated Wood I-Joists." This standard outlines the test procedures required to establish the joists' strength in shear, flexure and bearing, as well as minimum creep performance. The standard also specifies the statistical analysis to be carried out on the test results and the determination of the design value to be used in 'working stress' design. The next edition of CSA O86.1, "Engineering Design in Wood (Limit States Design)" will specify testing to ASTM 5055 and outline the determination of the design value for 'limit states' design.

Evaluation Officer: Bruno Di Lenardo

Bruno Di Lenardo has been an evaluation officer with CCMC since April 1990. His areas of specialization are structural products made of wood composite materials, insulating sheathings, spray-in-place foam plastic insulation and air barrier materials and systems.

He graduated from McGill University in 1980 with a bachelor's degree in civil engineering. After graduation he worked for a consulting firm engaged by the Cree Indian band of the James Bay area for the relocation and reconditioning of 400 houses and construction of municipal services, commercial and institutional buildings. He then joined the City of Westmount as an engineer in the Public Works department; after two years he was appointed Assistant Director of Services for the City. The Services Department included Inspection Services, Zoning and Planning, Building

Permits and Licences, Parks and Recreation, Health and Welfare, Purchasing and Stores, Community Centre and Greenhouse.

Once the design values have been established, CCMC requires that pre-engineered span tables be submitted in accordance with CSA O86-M84, "Engineering Design in Wood (Working Stress Design)" with respect to the loads anticipated in Part 9 construction. These span tables for living quarters, bedrooms and/or roofs are usually published by the manufacturer as part of a technical manual or installation guide and are referred to in the CCMC evaluation report. As a result, the building official must obtain a copy of the manufacturer's details to ensure conformity of the installation of the joist. Particular attention should be paid to the length of span, minimum bearing length for that span, whether stiffeners are required, limitations on web hole openings and rim joist details. Proper handling and storage (protection from weather) on site is also necessary to ensure product performance.

The CCMC evaluation report also confirms that the manufacturing plant is under the supervision of an accredited third-party certification agency. Products considered valid in the field must possess both the CCMC and the certification agency's mark. At present only Warnock Hersey Professional Services Ltd. (WHPS) is accredited by the Standards Council of Canada to certify such manufactured wood products in Canada. The certification mark of Warnock Hersey continues to be the well known "WH" but the name of the new parent company, Inchcape Testing Services, may now be seen on various documents.

CCMC has published seven evaluation reports on prefabricated wood I-joist products and several others are soon to be released. These reports may be found under Masterformat Section 06195 of CCMC's new Registry of Product Evaluations.

Information: B. Di Lenardo ♦



After three years as Assistant to the Director of Services, Mr. Di Lenardo was appointed Director of Services of a restructured department for the City of Westmount, focusing on Inspection Services, Zoning and Planning, and Permits and Licences.

Mr. Di Lenardo is a member of the Association of Professional Engineers of Ontario and Order of Engineers of Quebec. He is also an active member of several CSA and CGSB technical committees. ♦

Loose-Fill Cellulose Insulation

Building officials should verify that the depth of a newly-installed product is 12% higher than the figure indicated on the application chart for "settled thickness."

CCMC has evaluated several cellulose products which meet the Canadian product standard CGSB 51.60-M90 (Thermal Insulation, Cellulose Fibre, Loose-Fill). These evaluations apply to wood-based, cellulose-fibre, loose-fill insulation suitable for indoor use. Generally, the material is made from shredded commercial newsprint and combined with additives in granular form; one evaluation has been published for cellulose insulation made from raw pulp, in sheet form, which is immersed in liquid chemicals and then fiberized.

The standard has several performance requirements. CCMC confirms thermal resistance, flame spread permanency, moisture absorption and fungal resistance. The other requirements of the standard, such as flame spread rating, smouldering resistance, corrosion, and separation of chemical additives, are regulated under the Hazardous Products Act and fall within the jurisdiction of Consumer and Corporate Affairs Canada.

Some manufacturers of cellulose insulation listed with CCMC provide for quality assurance by listing their products with the Canadian General Standards Board (CGSB) accredited certification program. As a convenience for subscribers to CCMC's Registry, and at the request of the producers, the CCMC listings for those products are provided based solely on the certification listing by CGSB.

Products with CCMC listings are only suitable for horizontal applications with a maximum slope of 2.5 in 12. Over the past few years all the cellulose insulation product listings have been revised; this reflects the manufacturers' modification in their manufacturing process to produce a lighter product, with densities around 25 kg/m³, versus the previous 40 kg/m³.

The insulation should be installed by qualified installers. One point which building officials should note is the depth of installed product on the day of application. The application chart on the product bag (as specified by the standard and as noted in the CCMC listing) refers to the settled thickness over time. Therefore, the thickness on the day of application should be 12% higher than the figure indicated on the chart for "settled thickness."

CCMC has also evaluated systems under the equivalency clause of the National Building Code (NBC) whereby cellulose insulation can be used in vertical applications. These evaluations are contained in CCMC evaluation reports and will be the subject of a future article in CCMC News. Changes to the 1990 NBC are being considered to recognize the use of cellulose in vertical applications according to the CCMC guidelines.

CCMC has a total of 17 cellulose products evaluated and listed in its Registry of Product Evaluations.

Information: R.C. Waters ♦

All foamed plastic insulation must be protected from the adjacent space by an approved thermal barrier.

Protection of Spray-in-Place Foam Insulation – Follow-Up

In the Fall 1992 edition of CCMC News, the article entitled Spray-in-Place Foam Insulation highlighted several issues concerning the evaluation of spray foam insulations. CCMC has received several letters and telephone calls on this subject; some raised concern that the article neglected to mention the National Building Code requirement whereby all foamed plastic insulation must be protected from the adjacent space by an approved thermal barrier.

The Fall article mentioned that licensed installers have been trained to be aware of fire-safety requirements for spray foam insulation. The licensed installers are to

respect both the criteria set for distance to heat-emitting devices which may be recessed or concealed in walls, and the maximum cover of electrical wiring permitted to prevent overheating of the wire.

The licensed installer is also aware that an approved thermal barrier must be installed over the spray foam product, however, the installer for the spray foam is seldom responsible for the installation of the thermal barrier. The building official, concerned with conformity of the complete assembly, will probably oversee the installation of the thermal barrier by others in accordance with the Code. ♦



CCMC's Product Identification Policy...continued from page 1

All products evaluated by CCMC are now required to be identified with the unique CCMC evaluation number for that product, as follows: CCMC # XXXXX-L (for listings) or CCMC # XXXXX-R (for reports). All CCMC reports and listings have been amended to indicate that they pertain only to those products identified with the proper CCMC evaluation number. The reference must be clearly visible and legible and may be incorporated on some other marking, label or stamp already appearing on the product. If the nature of the product or system makes an identification of the CCMC number directly on the product impossible, the number should be located either on the packaging, such as on a bag or container or, in the case of system designs, on the working drawings.

The new identification policy will benefit regulatory enforcers, designers and product proponents. A

consistent reference to CCMC numbers will assist building officials and other users of construction materials (designers, specifiers, contractors, etc.) in identifying CCMC-evaluated products and thereby facilitate their acceptance and specification. The policy will also eliminate lingering confusion between CCMC and the former product evaluation program of CMHC. Finally, identifying CCMC-evaluated products will improve feedback to CCMC on the proper installation and in-situ performance of those products.

Many manufacturers already identify their products with their CCMC numbers; overall, the response by other manufacturers has been very supportive. A consistent identification of CCMC-evaluated products will facilitate specification or inspection work and provide additional promotion for products that have successfully undergone the CCMC evaluation process. ♦

Standing Committee on Technical Evaluations

At its last meeting, the Canadian Commission on Construction Materials Evaluation (CCCME) established a Standing Committee on Technical Evaluations whose primary mandate will be to review the technical content of CCMC's proposed Technical

Wayne Watson (Chair)
President, W2 Consultants Ltd.

Brian Burton
TROW Consulting Engineers Ltd.

Howard Grisack
Warnock Hersey Professional Services Ltd.

Guy Harvey
Régie du bâtiment du Québec ♦

Guides, in particular the testing protocol and performance criteria. The CCCME Executive Committee, at its April meeting, appointed the following individuals to serve on the Standing Committee for a three year term:

Cecile Mutton
DOW Chemical Canada Inc.

Peter Sawras
Carruthers & Wallace Ltd.

Siri Tillekeratne
Planning and Building Department
City of Calgary

APCHQ Launches "Innovation - Produits de Construction"

L'Association provinciale des constructeurs d'habitations du Québec (APCHQ), has officially launched their fourth contest entitled, "Innovation - Produits de Construction."

All manufacturers, distributors or inventors who have introduced an innovative construction product into the Québec marketplace during the last two years are eligible to apply. The deadline for submissions is October 25, 1993. The juried and selected products will then be on display at the Expo Habitat.

For further information on the contest, please contact Mrs. Manon Laporte of APCHQ at (418) 682-3353. ♦

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