



Building Officials Newsletter

Building Standards
January 2001

You Wanted to Know...

A builder has asked for approval of a product substitution in a wall that is a required fire separation with a required sound transmission class (STC) rating. He wants to use Type C gypsum board instead of Type X. What is the difference between Type X and Type C, and are there any problems with this substitution?

Gypsum board has a noncombustible core, primarily of gypsum (at least 65%), with paper surfacing bonded to the core. It comes in many kinds, such as wallboard, vinyl-faced, backing board, water-resistant, coreboard, sheathing, base for plaster, lath, and exterior soffit board. Any of these can come in the Type X designation, which means that they will provide greater fire-resistance than regular board of the same thickness.

The gypsum cores of Type C boards are made with proprietary formulations that vary by manufacturer. Information from the Georgia-Pacific gypsum products website www.gp.com/gypsum provides us with the description of their Type X and Type C products. *“The main additive that helps produce Type X board is glass fiber. On exposure to fire, gypsum loses chemically combined water. As a result, the gypsum particles shrink, lose contact with each other, and the board falls apart. The network of glass fibers in the core of Type X board helps maintain the structural integrity of the board when exposed to fire. Type C board is produced when vermiculite ore is added to the board formulation in addition to the glass fibers. Vermiculite ore expands when exposed to fire. Because the ore expands at the same time that the gypsum is shrinking, the board is dimensionally stable for an extended period of time. In other words, a Type C board is superior to Type X. Type C not only maintains the board integrity at high temperature but also keeps the board from shrinking. The majority of fire-rated assemblies use Type X board. In some assemblies, however, Type C board is specified and must be used. The reason a gypsum company specifies Type C board in a given assembly is because it was the only way the company was able to pass the fire test.”*

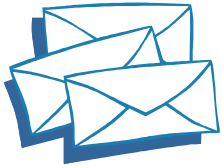
However, caution should be exercised in approving substitutions because use of Type C board might affect the STC rating of an assembly. Limited acoustical testing revealed no significant differences, but a limitation on substitutions was found on a Westroc Inc. specifications sheet at www.westroc.com. If the STC rating is required and Tables A-9.10.3.1.A. and B. of the National Building Code of Canada 1995 are being used as the basis for evaluation, Type C should not be substituted for Type X without further information. Many manufacturers complete independent testing and can provide STC ratings for other assemblies. Only if the builder can provide other acceptable test results for STC ratings, should the substitution be considered. §

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Readers' Letters

If you wish to comment on anything you've read in the Building Officials Newsletter, please send your letter to us by fax, e-mail or post-mail at the addresses listed on the last page.

Lumber Grading

Wood products used in structural applications that are covered by the building code must meet specified requirements. Two distinct systems in Canada provide conformity assessment for wood products.

Manufactured wood products are certified by certification bodies that are accredited by the Standards Council of Canada (SCC). Certification entails physical examination, testing as specified in appropriate standards, plant examination, and

follow-up unannounced plant inspections. Certification marks on these products are formal assurance that the product meets the specified requirements. Certified manufactured wood products include plywood, waferboard, strandboard, particleboard, glue-laminated timber, structural composite lumber, composite structural panels and shapes (beams, trusses, stressed skin panels), and laminated and jointed wood products. A list of accredited certification organizations and links to descriptions of which products they certify can be found on the SCC website at www.scc.ca/certific/colist.html.

For dimensional lumber, The National Building Code of Canada (NBC) 1995 references the National Lumber Grades Authority (NLGA) *Standard Grading Rules for Canadian Lumber*. This standard is referenced directly in Subsection 9.3.2, and indirectly from Article 4.3.1.1. through CSA O86.1 "Engineered Design in Wood (Limit States Design)." The NLGA is incorporated under a Federal Charter as the organization responsible for writing, interpreting, and maintaining Canadian lumber grading rules and standards. The NLGA rule is approved and enforced by the Canadian Lumber Standards Accreditation Board (CLSAB) and the American Lumber Standards (ALS) Board of Review. This approval enables acceptance under the building code. The rules for dimensional lumber 2 in. to 4 in. thick establishes standard lumber grades and grade names. NLGA membership consists of all the lumber manufacturers' associations and independent grading agencies in Canada that have been accredited by the CLSAB as well as the ALS. A list of NLGA members and their grade stamp facsimiles can be found at www.nlga.org/newgrade.html and in Table A-9.3.2.1.B. of the NBC 1995.

The mills in Saskatchewan (approximately 30 of them) belong to the Central Forest Products Association Inc. The mills employ lumber graders, who complete the visual grading and stamping of the mill's products. Lumber is also graded by machines that automatically flex or scan each piece. Visually grading is employed to provide a correlation between the machine-measured characteristics and the in-service use. The Central Forest Products Association employs a full time inspector based in Hudson Bay, who makes a monthly visit to each of the mills to check the lumber grading. The Association does lumber grader training and auditing of the mills and is accredited by CLSAB. The CLSAB audits the Association and other accredited associations twice per year, and has the authority to monitor the ongoing performance of associations, review compliance, issue mandatory orders, levy fines, place an association on probation, and suspend or withdraw an accreditation.

If someone has ungraded lumber that they want graded, they should contact the Central Forest Products Association Inc. at Suite #309, 35-2855 Pembina Highway, Winnipeg, MB, R3T 2H5, telephone (204) 487-7403, fax (204) 487-3796. However, once lumber has been built into a structure, it cannot be graded.

For more information and discussion about lumber grading see A-9.3.2.1.(1) in the NBC 1995 and Section 9.3 of *User's Guide – NBC 1995 Housing and Small Buildings (Part 9)*. §

BUILDING SAFETY WEEK APRIL 8-14, 2001

Residential Tall Walls

With the increasing use of tall walls (walls greater than one storey in height) in the housing industry, it is important to look at the National Building Code of Canada (NBC) 1995 requirements. Subsection 9.23.10 Wall Studs prescribes exterior wall stud heights up to 3.6 m (11'-9.5"). A two-storey dwelling with a great room could incorporate an exterior wall with an unsupported height well in excess of this limit. In any application where the NBC 1995 does not prescribe requirements, professional design is required. Recently available publications and resources may assist an authority having jurisdiction to evaluate and accept the design and construction of tall walls.

The Canadian Wood Council (CWC) publishes a document called the "Tall Walls Workbook." This workbook is available for download, along with other CWC publications, on their website at www.wood-works.org. It appears that the "Tall Walls Workbook" is most suitable for use by a professional designer or competent technologist. Also on the website is a design program called the "Tall Walls Sizer". This tool calculates stud sizes for tall walls based on specific information provided by the user and based on numerous assumptions. Care must be taken to provide accurate information, and to check that the assumptions are applicable.

Another available reference is the Alberta Housing Industry Technical Committee's, "Guidelines for the Construction of Residential Tall Walls." This document includes design and construction details that have been designed by a structural engineering consultant. It provides several alternatives based on the wall size, window arrangements, and site climatic conditions. It is available through Canada Mortgage and Housing Corporation (CMHC) at 1-800-668-2642 or through the Alberta Home Builders' Association at 1-800-661-3348.

The publications and resources mentioned above may be helpful in providing building officials with the knowledge and confidence to evaluate and accept the design and construction of residential tall walls in buildings under their scrutiny. §

SPAG News

by Tim Macaulay,
Saskatchewan Health

Highlights of the Saskatchewan Plumbing Advisory Group November 20, 2000 Meeting:

- Presentation by John Archer, National Research Council, on Objective-Based Codes.
- Update on new Saskatchewan Plumbing and Drainage Regulations – Additional amendments are being prepared. SPAG supports the need to proceed with the adoption of the 1995 National Plumbing Code, with some Saskatchewan amendments, as the basis for the new regulations. SPAG also requested that Saskatchewan Health work with Municipal Affairs Culture and Housing officials regarding the need for the building or plumbing regulations to reference installation and specifications requirements for cubicles in public washrooms.
- Information was shared on CSA's plans to develop a standard for grease interceptors. Saskatchewan Health has requested CSA to also develop a standard for grit interceptors.
- A safety watch bulletin describing problems with plastic vent failures on Rheem PV 40 & 50 Water Heaters was shared with the group this information has also been shared with the Gas Inspection Branch.
- Information was shared on the CSA Standard B66-00 Prefabricated Septic Tanks and Sewage Holding Tanks; and an amendment to CSA Standard B127.10-99 Asbestos Cement Drain, Waste, Vent Pipe and Fittings.
- A request for approval of usage of grease interceptor additives was received from a Saskatchewan based distributor. SPAG deferred decision pending the receipt of additional information.

NOTE: Those who have questions regarding SPAG should contact Tim Macaulay, Saskatchewan Health at (306) 787-7128, fax (306) 787-3237, or e-mail tmacaula@health.gov.sk.ca.

"Don't ever take a fence down until you know why it was put up." — Robert Frost

Acceptable Uses of Materials

Suppose a builder approached you to approve use of a low emissivity sheet material (polyethylene air-bubble pack surfaced with aluminum foil) as thermal insulation under a slab-on-ground or in a ceiling. You would probably ask for documentation about the material's thermal performance. The builder might tell you that this product has been tested by CCMC and direct you to Evaluation Report 12360-R in the *CCMC Registry of Product Evaluations* at www.nrc.ca/ccmc. And once you heard that the material was listed, you might jump to the conclusion that the builder could go ahead and use the material as proposed. However, the limitations of the listing reveal that the listing refers only to specific vertical applications in walls and are not valid, for example, when the product is left exposed on ceilings. Clearly, the result of misusing the listings, despite a builder's good intentions, could leave a building owner with a product that has not been demonstrated to perform as required, and could leave a building official with having to explain why use of the material in this application was approved. A quick look at some listings for other products revealed limitations such as, "for use in buildings that fall under the scope of Part 9 of the NBC," "may not be used where it may be in contact with water," and "shall not be installed after its expiry date." The description below, from the CCMC website, provides more guidance on use of the evaluation reports. In addition, it is worthwhile to check whether a listing is still valid. Online evaluation reports, including notice of new product, cancelled and suspended evaluations, are updated quarterly. For those who do not have Internet access, annual printed versions are available by contacting National Research Council's Client Services - Publication Sales, telephone (613) 993-2463, 1-800-672-7990 or fax (613) 952-7673. §

NRC's Institute for Research in Construction



Using Evaluation Reports

CCMC Evaluation Reports have been prepared to provide construction specialists, such as professional designers and building regulators, with important technical information on the use of construction materials, equipment or systems. Following the indexing information and key data regarding the product name, the proponent's name and location and the manufacturing location, each report contains five standard numerically indexed sections.

Section 1 – **Purpose of Evaluation** concisely states why the product has been evaluated. Most often the reason is to determine conformance to the intent of a building code or standard.

Section 2 – **Opinion** provides a brief statement by CCMC about the compliance of the product to requirements such as the intent of a construction code.

Section 3 – **Description** gives a short summary of the characteristics of the product to help readers understand its use and how to recognize it.

Section 4 – **Usage and Limitations** provides guidance on suggested uses, including limitations, that formed the basis of the opinion in Section 2. Illustrations may be included to help interpret the use of the product.

Section 5 – **Performance** describes the technical basis of the evaluation, including the tests and other information used. Numerical test results are often

included to provide additional information to users of the product.

Each evaluation report and evaluation listing bears the product name, the manufacturer's name and two classification numbers to make it easier to retrieve. One of the numbers is the CCMC evaluation number, which consists of five digits followed by the letter L (listing) or R (report). Examples are CCMC 12326-L and CCMC 12070-R. The other number is the MasterFormat system section number, which is given as follows: Division xxxxx on the first page of each report, with the listings bearing just the number.

Some of the Evaluation Reports and Listings appearing in this Registry show "Re-evaluation due" dates that are past. CCMC is in the process of re-evaluating these products. In the interim, the evaluations remain valid for the conditions under which they were originally published.

A few of the CCMC Evaluation Reports in this publication are reformatted versions of those which appeared in the former Canada Mortgage and Housing Corporation (CMHC) Building Material Evaluation Reports. These reports contain a specific statement highlighting this fact. In such cases, the CCMC Evaluation Reports and recommendations concerning the suitability of the products for use are based upon the same data as was used for the CMHC reports.

What People Think About You: Increasing Your Credibility at Work

by Kathleen Mihelich, Vice President, Professional Development Services, BOCA International, Inc.

Focus: Credibility

Third in a series highlighting opportunities for code enforcers seeking enhanced professional stature.

Being a code official involves dealing with people on a regular basis, and success or failure often depends on your personal interaction with them. How you are perceived relates to the level of trust placed in you and this will ultimately influence your professional success.

In the field of code enforcement, credibility is the mark of a respected professional. With it comes these benefits:

- Self-fulfillment – Being credible provides you with a sense of security, accomplishment, and pride.
- Personal belief – Being concerned about your credibility and how people perceive you illustrates dedication to your profession.
- Professional recognition – The level of respect and trust from your supervisor, peers,

staff and the people you serve comes from your credibility.

You should therefore make every effort to increase and maintain a high level of credibility.

About Credibility

A code official's credibility depends on personal interaction, professional presentation, technical competence, and the overall work process. To maintain a high level of professional credibility, a code official must maintain a balance of all four elements.

1. Positive personal interaction – Achieved through proper behavior and professional ethics, both inside and outside of the workplace.
2. Professional presentation – Achieved through effective oral and written communication with your superiors, peers, members of the community and the media.
3. Technical competence – Achieved through proper

interpretation of codes and standards and by studying and obtaining certification credentials.

4. Work process – Achieved through the use of good planning, accurate record keeping, and efficient time management.

You Don't Need a PhD to Be Credible

The first step in increasing your credibility is to identify your personal strengths and weaknesses in each of the four elements. The self-assessment process will provide you with a basis upon which to build. Furthermore, you can use the results of your self assessment to set up a long-term plan for working on all four elements. Setting long-term goals will help you continue on the path of increased credibility.

Attempting to identify your own strengths and weaknesses, however, can often be a difficult task. Many people have trouble stepping back to look at themselves as others see them. Begin slowly. Identify your personal strengths and build in them while you work to strengthen your weaker areas. Once your credibility is increased, your professional stature will be enhanced.

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BUILDING SAFETY WEEK
APRIL 8-14, 2001

Fall 2000 SBOA Conference — Panel Session Questions

The following questions and answers were exchanged during the Building Standards Panel Session at the Saskatchewan Building Officials Association Inc. (SBOA) fall conference in Saskatoon. We look forward to having the same opportunity to hear what's on your minds at the spring conference, scheduled for March 28-30, 2001 in Weyburn.

Q: There was a Supreme Court decision last year that involved construction work on a house in Toronto. The owners sued several parties, including the city building inspector. The City was found partially liable for damages. Could the same thing happen here or does the owners' responsibility for compliance with the code set out in The Uniform Building and Accessibility Standards Act (the UBAS Act) prevent this?

A: The same thing could happen here. You may recall that we looked at the Supreme Court ruling on the *Ingles v. Tutkaluk Construction Ltd.* decision in the April 2000 issue of this newsletter and examined the implications with respect to the UBAS Act. There is nothing that would prevent an owner from suing anyone involved in construction of a building for remedy for damages resulting from the construction. If anything done by a local authority or a building official under authority of the Act can be proven to be faulty, negligent, deficient, or malicious and this action contributes to a failure, the courts can assign liability to the local authority and/or the building official. The Act assigns building owners responsibility for compliance with the requirements, but anyone who contributes to a failure can be found liable. Through this and previous decisions, Canadian courts have made it clear that building officials must live up to reasonable expectations of accuracy, care, diligence, and impartiality.

Q: Often there is a problem with the fit of fire stopping around Class B chimneys serving gas appliances in houses, where the chimney goes through the ceiling and into the roof space. As well, there is a no thermal barrier in the space around the chimney. Is there a product that is readily available for use in new construction? Insulating tradespeople often ask for advice as they see this as a problem.

A: If the Type B vent or chimney is enclosed in a concealed space, fire stops need to be tightly fitted at the ceiling level to satisfy Article 9.10.15.1. of the National Building Code of Canada (NBC) 1995. Manufacturers provide metal collars specifically for this purpose, with tabs for attachment and spacers to maintain the required distance to combustibles. Either the collars are not being installed properly or the wrong collars are being supplied or used. If this is a persistent problem, you might suggest that the installer contact the manufacturer for clearer installation instructions. In the meantime, the installers should add a layer of 0.38 mm sheet metal to fire stop any gaps.

Regarding the lack of insulation at this location due to the 25 mm (1 in.) clearance requirement to combustible material, this is the way that these chimneys are designed. The clearance to combustibles is required by the manufacturer's installation requirements. As well as keeping combustible material away from a hot furnace vent, it also keeps the vent from getting too warm by allowing proper air flow and heat dissipation away from the vent. These requirements are considered more vital than the small amount of heat loss at this location. It is more important to check that the vapour barrier

is adequately sealed around the ceiling penetration to prevent moisture from escaping into the cold attic space.

Q: I would like to get some clarification on the number of water closets required for women in assembly occupancies. Is it possible to accept less based on equivalent performance? Would it make a difference if it was in an existing building?

A: The number of water closets required for females in assembly occupancies is set out in Table 3.7.4.2.A. of the NBC 1995. For example, if the total

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design occupant load in a theatre complex is 330 people, and we didn't have any further specification about the breakdown by sex, we would assume that there would be 165 males and 165 females. From the table, the required number of water closets would be 4 for males (2 of the 4 could be urinals) and 7 for females. At least one for males and one for females would also have to be barrier-free. It is unlikely that there is a reasonable argument for accepting less than the required number of water closets in a new facility like this. The water closets would not all have to be located in the same washroom, but they would have to be available for the use of the occupants. However, there are two specific situations you might want to consider.

- In the case of an assembly occupancy with a total occupant load of 20 people, the table would require 1 water closet for males and 2 for females. You may choose to apply the concept of Sentences 3.7.4.2.(2) and (4), which suggests that one water closet will serve 10 persons, and permit provision of only 1 water closet for males and 1 water closet for females—both barrier-free.
- In the case of an assembly occupancy with a total occupant load of 50 people, the table would require 1 water closet for males and 2 for females. Looking back at the NBC 1990, we see that only 1 water closet for males and 1 water closet for females would have been required. Both building officials and health inspectors have asserted that this requirement is more reasonable and provides adequate minimum facilities. This change will be included in the proposals when the next amendment to the Saskatchewan regulations is recommended, and has been considered by the Standing Committee on Fire Safety and Occupancy for the NBC. Saskatchewan's provincial representative for the plumbing code, Tim Macaulay, will be gathering more persuasive evidence that this change is needed, from the health inspectors for the Standing Committee. With the understanding that this change will be made, you may choose to, on a case-by-case basis where it seems reasonable, permit provision of only 1 water closet for males and 1 water closet for females—both barrier-free.

As for existing buildings, they should be treated the same as new buildings when there is a new assembly

occupancy. If an existing assembly occupancy is undergoing renovations or changing occupants, it is unlikely that you would look for compliance as you would for a new building or occupancy, unless the entire floor space was being gutted and rebuilt.

Check out the new Message Board feature on the SBOA website at www.sboa.sk.ca. This is a quick and easy way to share information and discover hot topics.

Q: What does A277 certification on a mobile home mean? Does it meet the NBC requirements? Is there a difference between modular home and mobile home? Can a municipality control moving-in mobile homes by demanding they be placed on a permanent foundation?

A: A277 certification of a mobile home means that the manufacturing plant has been certified under the CSA standard CAN/CSA-A277 "Procedure for Certification of Factory-Built Houses." It provides for certification of the plant quality program and the product built, auditing of the plant quality program, and in-plant inspection of the product built. The standard does not cover those portions of structures or services that are not factory-installed, nor the subsequent transport and erection of the product at site. A factory-built house could be a modular home, a mobile home, or a panelized home. A modular home is defined as "finished section(s) of a complete dwelling built in a factory for transport to the site for installation." A mobile home is defined as "a transportable, single-or multiple-section single-family dwelling that conforms to the CSA Z240 Series of Standards at time of manufacture. It shall be ready for occupancy upon completion of set-up in accordance with required factory-recommended installation instructions." A panelized home is defined as "a complete dwelling assembled on site using factory-built finished housing components." The standard requires that modular and panelized homes comply with the NBC or appropriate provincial or municipal building code, and requires that mobile homes comply with the CSA Z240 Series on Mobile Homes. Appendix note A-2.1.4.1.(1) of the NBC 1995 describes the

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relationship between these CSA standards and the NBC. If a municipality wishes to control where mobile homes can be located within the municipality, it should provide for this in its zoning bylaw. A municipality should not try to prevent someone from bringing in a mobile home by demanding that it be placed on a permanent foundation. Article 9.15.1.4. of the NBC 1995 recognizes CSA Z240.10.1 “Site Preparation, Foundation and Anchorage of Mobile Homes” for homes that comply with CAN/CSA-Z240.2.1 “Structural Requirements for Mobile Homes.” This standard describes placement of mobile homes on perimeter foundation walls, pile foundations, reinforced concrete slab-on-grade, wood or concrete piers, and concrete or wood footings, and also says that foundation systems designed and constructed in accordance with this Standard are considered to be permanent installations.

Q: Regarding Article 9.7.1.3. Bedroom Windows, what is the “unobstructed opening”? Does this pertain to the actual opening when the window is open regardless of the opening mechanism, or is the mechanism treated as an obstruction when calculating the opening?

A: Since this term isn’t defined, we looked in the dictionary and have concluded this means an opening that does not have impediments or obstacles, or is impassable, or is difficult to pass through. This requirement is included in the NBC to provide for a means for emergency escape should a fire prevent escape by normal egress routes. Anything that reduces the size of the opening that a person could get through, including the window opening mechanism, would be an obstruction. Based on the number of questions and concerns we hear about this Article, and in particular, awning windows, we will prepare an advisory about bedroom windows.

Q: Regarding Subsection 9.10.14. Spatial Separations, when calculating the unprotected openings is the window opening calculated by the windows rough opening in the wall, or the glazed area only?

A: The amount of unprotected opening for a window is generally calculated as the rough opening.

Q: In Article 9.10.14.2. reference is made to how the building is measured “from the finished ground level to the uppermost ceiling.” In the case of a building supported by pilings on grade with skirting around the perimeter, is the area between grade and floor joists considered an unprotected opening?

A: If the area between grade and floor is not occupied or used for storage or parking, we would not consider this skirting an unprotected opening. However, if the area was used for any purpose, the skirting (exterior wall) would have to have the same construction, rating, and cladding as the remainder of the exposing building face, or be considered an unprotected opening. §

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WETT Training Available

There has been some interest from the certified Wood Energy Transfer Technology (WETT) instructor from Manitoba in putting on a WETT “Code Compliance” training course in Saskatchewan. The instructor would be willing to put this course on if enough participants could be found. The dates for this course will be set once enough interest is shown.

The course provides an overview of wood heating technology and the regulations that govern safe installation of solid-fuel burning appliances. WETT encourages members of the wood energy trade, and municipal, insurance and private home inspectors to take the course together so that all participants learn about the roles and work objectives of other sectors.

To find out the course details, go to www.wettinc.ca/wettweb/contentshell.html and look for the “Code Compliance” program under the list of courses available. If you think you would be interested in taking this training, please call Ken Kluz at (306) 576-2351. §

News from the CCBFC Standing Committees

As part of the improved code development process for the National Building Code of Canada (NBC), Building Standards now receives agenda packages for all the Standing Committee meetings at the same time as the committee members. The Standing Committees prepare the requirements of the building, fire and plumbing codes, and report to the Canadian Commission on Building and Fire Codes (CCBFC). We receive this information to keep us up-to-date with code development activities, and to allow us the opportunity to provide Standing Committees with Saskatchewan's perspective on issues. Since we do not know the issues that you are dealing with locally, we will do our best to keep up with the agenda packages and pass some of the information on to you.

The following is a partial list of items that were on the agenda for Standing Committee meetings. If you have interest in more detail about what the Standing Committee planned to discuss, please contact us.

Standing Committee on Houses, November 2000 meeting (bracketed references to National Building Code of Canada 1995)

- residential care facilities (3.1.2.5.),
- alternate materials as vapour barriers (5.5.1.2.),
- referenced standard CSA A438-00 (9.3.1.),
- marking treated wood products for termite and decay protection (9.3.2.9.)
- application of specified loads to steel frame assemblies (9.4.2.1.),
- windows in bedrooms, window wells, window sills, window standards (9.7.1., 9.7.2.),
- loads on guards (9.8.8.2.),
- fire protection of exits (9.9.4.),
- doors in a means of egress (9.9.6),
- mini storage units (9.9.6.5., 9.10.9.13.),
- fire rating of supports for service rooms (9.10.8.4.),
- fire stopping of service penetrations (9.10.9.6.),
- protection of soffits (9.10.12.5.),
- limiting distance for zero-lot-line building developments, combustible projections, carports (9.10.14.14.),
- fire stop materials (9.10.15.3.),
- installation of ranges (9.10.21.1.),
- loads on steel columns (9.17.3.4.),
- insulation stops (9.19.1.3.),
- access hatches (9.19.2.1.),
- cantilevered joists for balconies and decks (9.23.9.10.),
- studs at sides of openings (9.23.10.6.),
- flashing materials (9.26.4.1.),
- cladding and protection from precipitation ingress (9.27.1.–9.27.3.),
- interior wall and ceiling finishes (9.29.5.),
- lighting outlets (9.34.2.),
- insulated concrete form wall construction (new section),
- relocated buildings (A-1.1.2.1.),
- beam and lintel span tables (Tables A-8. to A-15.),
- additional assemblies in fire and sound resistance tables (A-9.10.3.1.),
- straw bale construction (new).

Standing Committee on Building and Plumbing Services, January 2001 meeting (bracketed references to National Plumbing Code of Canada 1995 unless otherwise noted)

- venting systems (Section 5 and appendix) and harmonizing of requirements across Canada,
- macerating toilets (new),
- air admittance valves (new),
- mechanical joints (3.2.7.),
- unions and slip joints (3.3.4.),
- support for horizontal piping (3.4.5.(2)),
- interceptors (4.3.3., 4.4.3.),
- neutralizing and dilution tanks (4.4.4.),
- island venting (new),
- trap inlet for clothes washers (new),
- shut-off valves (6.1.3.),
- relief valves (6.1.7),
- definitions related to venting systems and fire protection systems (1.3.2.),
- revised standard for backflow preventers (6.2.12.),
- backflow from fire protection systems (6.2.4.),
- seismic restraint of tanks,
- flashing materials,
- plumbing system noise,
- site constructed fixtures,
- rainwater leaders,
- air duct systems (NBC 1995 6.2.3. and 6.2.4.),
- ventilation of apartments,
- referenced standards. §

HRAI **Initiates Building Officials Support Program (BOSP)**

by HRAI-Canada

HRAI-Canada now provides an information service called the Building Officials Support Program (BOSP) to assist municipal building departments in the identification, interpretation and enforcement of the applicable HVAC code requirements. The program objective is to create a partnership between the HVACR industry and municipal building officials that will assist with regulatory enforcement and result in better designed and installed HVAC systems for the consumer. This program was presented at the Saskatchewan Building Officials Association meeting on October 27, 2000.

Program Elements

The program contains three key elements that provide support for building officials and provide the industry with the tools to comply with the existing codes and standards. Each element is supported by a series of tools provided by HRAI as follows:

- *HRAI SkillTech Certification Program* – code-oriented post-trade training courses for the design of residential and small commercial HVAC applications, which are made available in all regions of the country and delivered by certified HRAI instructors. HRAI certification courses include:
 - Residential Mechanical Ventilation (RMV),
 - Residential Heat Loss/Heat Gain (RHLHG),
 - Residential Air System Design (RASD),
 - Residential Integrated (Combo) Systems (RIC), Small Commercial Heat Loss/Heat Gain (CHLHG) and Small Commercial Air System Design (CASD).
- *Communication “Links”* – a conduit of information on technical and industry issues, which effect the interpretation and enforcement of codes and standards. “News for Building Officials” is a communication piece available to all municipalities upon request. In addition, a wide selection of industry sector news including the Technical Link, Education Link, and Legislative Link and more are available to municipalities who become HRAI Associate members.



- *Technical Support* – available directly from HRAI via fax, e-mail or the 1-800-267-2231 Assistance Line to serve the membership and municipalities by providing code interpretation, source referral and general technical information. “If we haven’t got the answer, we can help you find the person who does!”

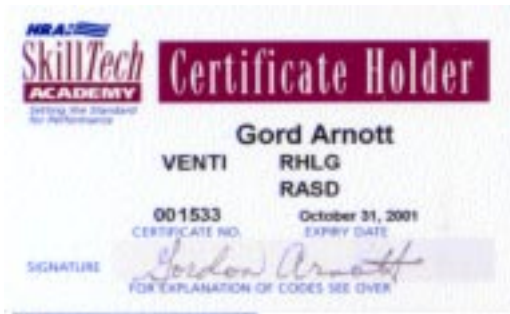
Program Tools

A number of supporting program tools are available through HRAI and accessible to both member and non-member municipalities. The Program “Tool Kit” includes:

- *Building Official Information Sessions and Training Courses* – HRAI can provide code related information sessions to assist building officials to understand and identify code requirements, as well as 2 and 3 day training courses designed for building officials. The information provided during the sessions enables the building official to inspect a residence effectively, while the expanded courses provide more in-depth technical knowledge of the mechanical systems.
- *HRAI Certification Card* – This plastic card identifies industry personnel as being “HRAI Certified” and includes their individual certification number as well as the HRAI certification courses that the cardholder has successfully completed. The card can be photocopied onto plans and submittal forms to provide building officials with an easy method of identifying HRAI certified personnel.

(continued on page 11)

(continued from page 10 — HRAI Initiates Building Officials Support Program (BOSP))



- *HRAI Certification Lists* – A complete list of HRAI Certified personnel is available in hard copy from HRAI upon request or can be accessed online at www.hrai.ca/certifiedindex.html.
- *HRAI Arbitration/Decertification Program* – This is a process for building officials and others to register code compliance concerns about work performed by HRAI certified individuals. An agreement **must** be signed by each HRAI certified individual. This agreement binds the individual to a review and corrective action process should a written complaint be received by HRAI regarding a design or installation of an HVAC system. A separate Arbitration/Decertification Agreement is signed for each of the HRAI Certification

courses. Should the individual refuse to participate in the process and/or not take required corrective steps, decertification would occur. HRAI would insure the system is brought up to the minimum code requirements at no cost to the homeowner, builder or municipality (excluding any legal actions initiated by the complainant).

- *Computer Software* – HRAI SkillTech Academy offers system design software, which can be useful for the evaluation of HVAC systems by the municipal plan departments. Current programs include residential heat loss/heat gain and residential air system design.
- *Mechanicals Labeling Program* – HRAI SkillTech Academy provides a one-source label which installers locate on the return air duct or near the electrical panel. This label provides the building inspector with the information to evaluate the compliance of the original mechanical system design prior to issuing the occupancy permit.

For more information on a BOSP presentation, contact Gordon Arnott at HRAI-Canada: phone 1-800-267-2231 or (905) 602-4700, e-mail: garnott@hrai.ca §

Canadian Building Digests

At www.cisti.nrc.ca/irc/cbd you can “find 240 of the 250 Canadian Building Digests published between 1960 and 1990 by NRC’s Institute for Research in Construction and its predecessor, the Division of Building Research. The topics reflect the diversity of the industry and cover virtually every aspect of design and construction in Canada. A high percentage of the Digests are as relevant and meaningful as the day they were published. Others are outdated to varying degrees but are included because they still contain useful information. Still others, such as those based on superseded editions of the National Building Code, are no longer applicable, and have not been included. Overall, the collection demonstrates how the construction industry has evolved and thus represents a veritable history of building practice thinking in Canada.” A sampling of the titles:

Noise Transmission in Buildings
Trees and Buildings
Building on Fill
Stack Effect in Buildings
Spread of Fire Between Buildings
Atmospheric Corrosion of Metals
Ground Temperatures
Heat Pumps for Residential Heating §

BUILDING SAFETY WEEK
APRIL 8-14, 2001

BUILDING SAFETY WEEK

APRIL 8-14, 2001

International Building Safety Week (IBSW) promotes the use and understanding of construction and building codes worldwide. Since 1980, this annual event has help building department personnel demonstrate to the people they serve how the construction of safe, sound and accessible buildings are achieved. IBSW is organized cooperatively by three model code organizations in the United States: the Building Officials and Code Administrators International (BOCA), International Conference of Building Officials (ICBO), and the Southern Building Code Congress (SBCC). Campaign kits are available from these organizations.

Several Canadian groups supported IBSW 2000, including the Canadian Commission on Building and Fire Codes and the National Research Council of Canada. The Saskatchewan Building Officials Association has made posters available to members and many Saskatchewan municipalities. Start planning now to celebrate Building Safety Week in your community. §



Saskatchewan Municipal Affairs,
Culture and Housing
www.municipal.gov.sk.ca



Saskatchewan Building Officials Association
www.sboa.sk.ca

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