



SBAS Appeal Board Appointments

In 2003, the Minister of Corrections and Public Safety asked building code stakeholder associations and groups to nominate possible candidates for the Saskatchewan Building and Accessibility Standards (SBAS) Appeal Board. The Minister recommended seven nominees for appointment. On authority of *The Uniform Building and Accessibility Standards Act*, the Lieutenant Governor in Council signed Order in Council #220/2004 on April 6, 2004, to effect appointment of the new board members, who are:

- Arnold Dobroskay, Chair, Saskatoon (second appointment)
nominated by the Saskatchewan Association of Architects
- Keith Hanson, Vice Chair, Saskatoon (fourth appointment)
nominated by the Saskatchewan Home Builders' Association
- Len Gendall, Secretary, Regina (second appointment)
nominated by the Saskatchewan Property Management Corporation
- Helen Christensen, Saskatoon (first appointment)
nominated by the Interior Designers' Association of Saskatchewan
- Fred Luthje, Baldwinton (fourth appointment)
nominated by the Saskatchewan Voice of People with Disabilities
- Jake Meyer, Indian Head (first appointment)
nominated by the Saskatchewan Urban Municipalities Association
- Mike Sazynski, Regina (first appointment)
nominated by the Saskatchewan Applied Science Technologists and Technicians

The members serve a three year term from the date of the order. The board hears and determines owner's appeals from building officials' orders or from the accessibility standards, advises the Minister on matters concerning administration of the Act and regulations, and performs any other duties the Minister may direct. The new board has not yet met for an introduction and orientation for new members, or to hear an appeal.

We are glad to have had a chance to work with the departing members of the board:

- Gerry Alexander, Regina
- Randy Ludwar, Swift Current

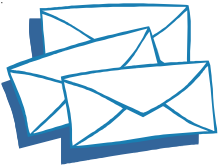
Their interest in and dedication to serving the people of Saskatchewan is greatly appreciated. §

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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.

Dear Building Standards: I am attaching a picture of mold on a rim board, which has spread to the underside of the OSB subfloor. This house is still under construction and was started about 7 months ago. The house is heated with an electric furnace and has not had mechanical ventilation installed. The only exhaust fan was one in the main floor bathroom. I did a progress advance inspection and found this mold. The owner has fired his mechanical contractor and hired a new one who is going to have a system of mechanical ventilation designed for this house. I advised the owner on how to remove the mold. Another municipality that does not have a building bylaw and an inspector! This owner understands now how proper inspections save dollars down the road.
Dale

Dear Dale, Thanks for the picture and report. Unfortunately, we couldn't reprint the picture clearly enough to include it here. Yes, we do have to continue to show people the value of building officials and inspections. And this situation clearly demonstrates that building officials should be observant and knowledgeable about more than just the construction process. Good job!

A Farewell ...

As many of you may already know, Margaret Kuzyk has left Building Standards to accept a position with Public Works and Government Services Canada in Saskatoon. Margaret was with us for nearly fifteen years, and her interest in the building code and dedication to service of our clients will be missed. Until a successor is appointed, Richard Nicolas will shoulder the duties as Acting Chief Building Official.

Margaret asked us to express her appreciation for all the years of cooperation, support and friendship from you. Please join us in wishing Margaret all the best in her future endeavours!

Dear Building Standards: I notice that the recent *Building Officials Newsletter* uses the "mould" spelling which differs from that commonly used by CMHC [Canada Mortgage and Housing Corporation] and SHC [Saskatchewan Housing Corporation]. I notice that "mould" or "mold" is not referenced in either form of the NBC 1995 – mine is not updated with recent revisions and errata. Perhaps it (mold or mould) was referenced later? The *Concise Oxford Dictionary* favours the "mould" spelling you use but also allows the use of "mold." It would be nice to have consistency. I favour staying with the "mold" spelling. What do you think?
Regards. Jim

Dear Jim, Well, you have probably found a more difficult topic than a building code interpretation! We did not find a definitive answer on this issue either. You are correct that the building code does not mention mold or mould. We consulted our frequent Internet assistant, Google, only to discover that mold was indeed the much more commonly used spelling. However, our dictionary says that "mold" is the U.S. spelling of "mould". (We notice you used the Canadian spelling of "favours"!!) So, we're no closer to a conclusion, but probably favour the spelling mould. Readers, any other thoughts?

In addition to the sources of information about mould mentioned in the January 2004 issue of this newsletter, you may also want to read about the new Canadian Construction Association document CCA 82 - Mould Guidelines for the Canadian Construction Industry at www.cca-acc.com. §

SBOA Fall Conference

Watch for coming announcements about the dates, location, format and content of the Saskatchewan Building Officials Association (SBOA) fall conference at www.sboa.sk.ca. At the spring conference in Humboldt, the members approved the Executive Committee's suggestion to develop the fall conference as a training session to assist building officials prepare for Class 2 licence examinations. This would take the place of the usual variety of topics and speakers that are on conference agendas. For more information contact SBOA at conference@sboa.sk.ca. §

Floodplain Construction

Although *The Uniform Building and Accessibility Standards Act* and the National Building Code of Canada (NBC) do not include prescriptive standards for construction within floodplains, buildings are required to be designed and constructed appropriately for their sites. If a building is going to be located where flooding is expected to occur (usually identified in a zoning bylaw), it can be raised above the flood level on earth mounds or stilts, or be constructed according to an engineered design and good practice. No other provinces or territories have adopted such prescriptive standards either, but almost all adopt a building code based on the NBC and the requirement for a building to be suitable for its site would be the same as in Saskatchewan.

An obsolete CMHC Technical Builders Bulletin has often been used as an example of good practice for floodproofing, but there are also many other publications that describe methods of flood protection and floodproofing.

- Federal Emergency Management Agency (FEMA) has many publications about floodplain management, including some that mention building construction standards. See www.fema.gov/library/prepandprev.shtm#floodplain and www.fema.gov/fima/how2bus.shtm.
- Environment Canada has several pages of guidance posted on their website at

www.ec.gc.ca/water/en/manage/floodgen/e_proof.htm.

- American Society of Civil Engineers have several publications. “Flood Resistant Design and Construction” is described at www.pubs.asce.org/BOOKdisplay.cgi?9990648.
- International Code Council has numerous US codes. Their guidance document “Reducing Flood Losses Through the International Code Series” is described at www.iccsafe.org/dyn/prod/7320S.html.

Saskatchewan Community Planning determines safe building elevations based on information provided by the Saskatchewan Watershed Authority and based on a flood hazard of 10% in the next 50 years. The Canada/Saskatchewan Flood Damage Reduction Program, which is housed with the Saskatchewan Watershed Authority, has also identified and designated twenty-six Saskatchewan communities where flooding is likely to occur.

If a municipality contains an area that is prone to flooding, and if the zoning bylaw permits development within this area, it would be appropriate for the council to adopt suitable construction standards in their building bylaw. No Saskatchewan municipalities have done this, to date, so building officials will generally require involvement of a professional designer. §

Construction Sector Council

A national initiative to address an anticipated need for more home inspectors and building officials was launched in December 2003 by the Construction Sector Council (CSC). The CSC is working with the Canadian Association of Home and Property Inspectors (CAHPI), the Alliance of Canadian Building Officials' Association (ACBOA), and the First Nations National Building Officers Association (FNNBOA) to get the project off the ground over the next 18 months. Other key funders include Human Resources Development Canada and the Canada Mortgage and Housing Corporation.

An important feature of the program is the development of national certification and accreditation models, so that the occupational standards developed by the Canadian Home Inspectors and Building Officials (CHIBO) in 2001 can be applied across Canada. The program is also expected to meet the anticipated demand for more building officials as changes are made to the National Building Code and the sector deals with the effects of reductions in related municipal services.

For more information on this and other CSC programs contact Michelle Walsh, Manager, Communications, Construction Sector Council, at (613) 569-5552 or mwalsh@csc-ca.org or visit www.csc-ca.org.§

You Wanted to Know...

Application of building codes as they apply to insurance losses has come up for discussion recently, questioning exactly how far we, an insurance company, are required to go to comply with upgrading code infractions. When an insured suffers a loss (i.e., a house fire), we will repair the home to its original condition and pay for building code upgrading on some policies. Some local authorities require upgrading of every infraction they discover in the home, and I am not sure if all these upgrades are required by law. Case in point: if an owner has a substantial fire and we end up gutting the home to the studs, we will replace all noncompliant wiring, ventilation, etc. But what happens if the basement is a wood basement that was built in the early '70s and there are numerous code violations which the local authority has asked to be corrected. Are we or the home owner required by law to upgrade a portion of the home that we are not even doing work on? If we are working on only a portion of the home are we required to update all code violations throughout the house?

Application of the National Building Code of Canada (NBC) 1995, as adopted in Saskatchewan, is described in Section 7 of *The Uniform Building and Accessibility Standards Act* (the UBAS Act) as follows (underlining for emphasis):

7(1) Subject to subsections (2) and (3), the owner of each building in Saskatchewan shall ensure that the building is designed, constructed, erected, placed, altered, repaired, renovated, demolished, relocated, removed, used or occupied in accordance with the building standards.

(2) The building standards do not apply to:

(a) a building on which construction was commenced or completed prior to the coming into force of this section, but the building standards do apply to an alteration, repair, renovation, demolition, relocation, removal or change of use or occupancy of such a building;

(b) a building on which construction was not commenced but for which a building permit was issued prior to the coming into force of this section pursuant to a bylaw of the appropriate local authority, but the building standards do apply to an alteration, repair, renovation, demolition, relocation, removal or change of use or occupancy of such a building;

(c) a farm building;

(d) any building or class of buildings or to any materials, equipment, protection devices or appliances or class of materials, equipment, protection devices or appliances that are exempted from the application of this Part in the regulations.

(3) Notwithstanding clause (2)(c), if a rural municipality passes a resolution stating that the building standards should apply to buildings in all or a part of the rural municipality, the Lieutenant Governor in Council may, by regulation, order that the building standards apply to the buildings described in the resolution.

You can see from the foregoing that the UBAS Act is quite specific about application of the building code to repairs and reconstruction in existing buildings. Article 1.2.2.1. of the NBC 1995 and the related appendix note elaborate:

1.1.2.1. Application

1) This Code applies to the design, construction and occupancy of new buildings, and the alteration, reconstruction, demolition, removal, relocation and occupancy of existing buildings. (See Appendix A.)

A-1.1.2.1. Application to Existing Buildings.

This Code is most often applied to existing buildings when an owner wishes to rehabilitate a building, change its use, or build an addition; or when an enforcement authority decrees that a building, or a class of buildings, be altered for reasons of public safety. It is not intended that the National Building Code of Canada 1995 be used to enforce the retrospective application of new requirements to existing buildings, unless specifically required by local regulations or bylaws. Although the National Fire Code of Canada 1995 could be interpreted to require the installation of fire alarm, standpipe and hose and automatic sprinkler systems in an existing building for which there were no requirements at the time of construction, it is the intent of the Canadian Commission on Building and Fire Codes that the National Fire Code of Canada 1995 not be applied in this manner to these buildings unless the authority having jurisdiction has determined that there is an inherent threat to occupant safety and has issued an order to eliminate the unsafe condition, or where substantial changes or additions are being made to an existing building.

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Whatever the reason, Code application to existing buildings requires careful consideration of the level of safety needed for that building. This consideration involves an analytical process similar to that required to assess alternative design proposals for new construction. First the objective of the Code requirements must be established. To assist the Code user in this regard, Appendix notes are included to clarify the intent of certain requirements. In addition, commentaries on the more complicated Code issues are available. Once the objective is defined, it must then be determined to what extent the existing building must be altered to meet the objective.

In developing Code requirements for new buildings, consideration has been given to the cost they impose on a design in relation to the perceived benefits in terms of safety. The former is definable; the latter difficult to establish on a quantitative basis. In applying the Code requirements to an existing building, the benefits derived are the same as in new buildings. On the other hand, the increased cost of implementing in an existing building a design solution that would normally be intended for a new building may be prohibitive.

The successful application of Code requirements to existing construction becomes a matter of balancing the cost of implementing a requirement with the relative importance of that requirement to the overall Code objectives. The degree to which any particular requirement can be relaxed without affecting the intended level of safety of the Code requires considerable judgment on the part of both the designer and the authority having jurisdiction. Further information on the application of Code requirements to existing buildings may be found in “Guidelines for Application of Part 3 of the National Building Code of Canada to Existing Buildings” NRCC No. 35951, the Commentary “Application of NBC Part 4 for the Structural Evaluation and Upgrading of Existing Buildings” of Structural Commentaries on the National Building Code of Canada 1995, and in Canadian Building Digest No. 230, “Applying Building Codes to Existing Buildings,” available from the Institute for Research in Construction, National Research Council of Canada, Ottawa, Ontario K1A 0R6.

Given this background, it is clear that any repairs and reconstruction that are being done must be in compliance with the building code.

Application of the building code to the remainder of the building is where careful consideration by the local authority is required. The level of safety required by the current building code is the “measuring stick” for this consideration. (For simplicity, we’ll assume that the cases you are concerned with typically do not involve a change of occupancy. A change of occupancy would require a different evaluation.) Typically, the building code is only applied to repairs and reconstruction portion of a project unless:

- a) compliance of the repairs and reconstruction is dependent on upgrading of existing features,
- b) upgrading of existing features is required to remedy unsafe condition(s), and/or
- c) the local authority has adopted a specific requirement for complete building code compliance in projects over a set dollar value or over a set percentage of the assessed value of the original building.

An example of a) would be a situation where new smoke alarms are required in a reconstructed portion of a house, and the existing smoke alarms are battery operated only. A local authority would be justified in asking for replacement of all existing smoke alarms so that they are all hard-wired, interconnected, and located as required in the current building code. An example of b) would be a situation where a reconstructed portion of a house was to be erected on a stable portion of a masonry foundation wall, but another portion of the foundation wall under an existing portion of the house had collapsed. A local authority would be justified in requiring that the collapsed portion be repaired, even though the new construction has no contact or reliance on it.

SPAG News

*by Tim Macaulay,
Saskatchewan Health*

There is no current news to report from the Saskatchewan Plumbing Advisory Group (SPAG). Those who have questions regarding SPAG should contact Tim Macaulay, Saskatchewan Health at (306) 787-7128, fax (306) 787-3237, or e-mail tmacaulay@health.gov.sk.ca.

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(continued from page 5 — You Wanted to Know...)

Generally, something that complied with a previous edition of the building code is not considered to be unsafe simply because the building code requirements have changed. So a local authority should not be requesting upgrading of previously compliant features in an existing building, except as noted in a) or c).

As for your specific questions: "...*what happens if the basement is a wood basement that was built in the early '70s and there are numerous code violations which the local authority has asked to be corrected. Are we or the home owner required by law to upgrade a portion of the home that we are not even doing work on? If we are working on only a portion of the home are we required to update all code violations throughout the house?*" It is our opinion that the local authority should not be asking for a full upgrade to current code requirements for portions of buildings that are not being repaired, renovated or reconstructed, except as described in a), b) and c) above. The responsibility for building code compliance lies with the building owner, regardless of who is paying the bill.

Application of the building code to existing buildings is largely a judgement call, intended to be made by knowledgeable and reasonable people. As noted in the appendix note, there are many reference materials available to local authorities and to building code users. You may view these references at the Building Standards office, or contact us if you would like order forms. In Saskatchewan, the remedy of appeal of an order to the Saskatchewan Building and Accessibility Standards Appeal Board is also available. Our website describes more about this process at www.cps.gov.sk.ca/Safety/building/appealboard.shtml. §

Venmar Ventilation Safety Upgrade Program

In cooperation with CSA International, Venmar Ventilation announced on February 26, 2004, that it is launching a National Safety Upgrade Program for approximately 6,200 Venmar, Flair and Heil air exchangers sold in Canada. Details of the recall can be viewed at www.csa-international.org by linking to Product Recalls and searching for "Venmar." §

Radiant Heating or Snowmelting Tubing Settlement

If you are the current or former owner of property in which Entran II Hose was or is used for radiant heating or snowmelting, you may be eligible for a payment from a class action settlement. For more information on the proposed settlement, your rights and a copy of the notice and claim form, visit www.entranii-settlement.com or call 1-800-254-9222. §

More Information about Asbestos-Contaminated Vermiculite Insulation

We have been notified about additional information related to the article "Asbestos-Contaminated Vermiculite Insulation" in the January 2003 issue of this newsletter. Health Canada and Canada Mortgage and Housing Corporation recently released documents about minimizing the risk of asbestos exposure:

- "Vermiculite Insulation Containing Asbestos" at www.hc-sc.gc.ca/english/iyh/products/insulation.html
- "About Your House: Asbestos" at www.cmhc-schl.gc.ca/en/burema/gesein/abhose/abhose_ce03.cfm

Health Canada recommends that you do not disturb the vermiculite and seek advice from a qualified asbestos professional. Professionals can be found in the Yellow Pages under the heading "asbestos abatement and removal".

The Government of Canada intends to conduct further research to determine the extent to which vermiculite insulation has been used in Canada and will take further action as appropriate. §

Quality Certification for Steel Building Systems

As mentioned in the October 2003 issue of this newsletter, the Fifth Revisions to the National Building Code of Canada 1995 was issued in June 2003 by the Canadian Commission on Building and Fire Codes. This revision package updated a referenced standard to CSA-S16-01 Limit States Design of Steel Structures. This standard includes the following new requirement

28.7.2 Steel Building Systems

Steel building systems shall be manufactured, ..., by companies certified to the requirements of CAN/CSA-A660-M.

This means that all steel building systems erected in the province must be manufactured by a certified manufacturer.

A steel building system features steel structural components, steel cladding components, and other related accessories. The components are designed as a total building system, and engineered to facilitate mass production and to permit assembly in various combinations.

Certification to A660 requires that the manufacturers' production facilities, staff and quality assurance systems be certified by an independent certification agency. As part of the A660 compliance, the manufacturer will provide a "Certificate of Design and Manufacturing Conformance" signed and sealed by a licensed professional engineer for each building project. A copy of the certificate can be obtained from the Canadian Sheet Steel Building Institute (CSSBI) website at www.cssbi.ca/PDF-Files/C1-04.pdf. To check whether a manufacturer is certified, a list of certified manufacturers is available on the Canadian Welding Bureau website at www.cwbgroup.com/quasar.

For more information about steel building systems, contact CSSBI at (519) 650-1285 or visit www.cssbi.ca.

For more information about and an explanation of the changes to CSA S16-01, visit the Canadian Institute of Steel Construction website at www.cisc-icca.ca/S16-01_changes.html. §

Natural Gas Fired Emergency Generators

Article 3.2.7.5. of the National Building Code of Canada (NBC) 1995 requires that emergency electrical power systems (other than for hospitals and nursing homes) require installation in compliance with CAN/CSA-C282 "Emergency Electrical Power Supply for Buildings." Article 3.2.7.7. requires a suitably-identified separate shut-off valve when the emergency power supply is dependent on a liquid or gas fuel supply from outside the building.

C282 was re-issued in 2000 and referenced in the Fourth Revisions and Errata to the NBC 1995, dated April 2002. The earlier edition of C282 did not specifically address the use of a natural gas fuel supply, with the result that it appears local authorities generally did not require on-site storage. The 2000 edition of C282 states that "where the fuel supply is natural gas or propane, a sufficient fuel supply shall be maintained on-site at all times to operate the engine under full load for at least 2 h, and the fuel piping and tanks shall be protected from fire exposure as prescribed for secondary fuel supplies in Clause 6.3.4."

Concerns about the need for and the danger of on-site storage have been raised by the University of Saskatchewan (U of S). Since natural gas supplies are highly reliable and since on-site storage of sufficient amounts of natural gas are a potential fire or explosion hazard, the U of S believes that C282 should allow the local authority to permit off-site supply of natural gas. By virtue of Article 3.2.7.7. in the NBC 1995, it appears that the Standing Committee anticipated this alternative.

The CSA Technical Committee for C282 has agreed to hear from a U of S representative at their meeting in May 2004, to consider this proposal. §

Please Note: The amendment regulations required to implement the interim measures in the *Provincial Action Plan for Fire Sprinkler Systems in Residential Care Homes* (attached to the January 2004 issue of this newsletter) have not been finalized. Watch for more information about their coming into force.

“Objective-Based Codes at a Glance”

The Canadian Commission on Building and Fire Codes and the Institute for Research in Construction of the National Research Council Canada have issued a pamphlet titled “Objective-Based Codes at a Glance.” It describes the structure of the objective-based code format for the national model building fire, and plumbing codes as:

Division A

- Compliance Options
- Objectives
- Functional Statements
- Appendix A

Division B

- Acceptable Solutions
- Appendices

Division C

- Administrative Provisions
- Appendix A

Division B will look quite familiar to users of the 1995 codes. The acceptable solutions in the 2005 versions of Division B will be the technically-updated existing prescriptive and performance requirements of the 1995 codes. You can still access the original proposed technical changes to the 1995 national model codes, linked from www.nationalcodes.ca. Please note that some changes have occurred as a result of comments submitted during the public review period.

For more information about the 2005 objective based codes visit www.nationalcodes.ca/consult/obc/index_e.shtml or write to codes@nrc.cnrc.gc.ca. §

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Comments, suggestions and constructive criticism about this newsletter are welcomed.

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