

IRCC Meeting 16

NRC Canada

May 9-11, Ottawa, Canada

Present

John Archer, NRC, Canada (JA)
Mike Balch, ABCB, Australia (MB)
Sylvie Beaudoin, NRC (SB)
Denis Bergeron, NRC, Canada (DB)
Bob Bowen, NRC, Canada (BB)
Dick Bukowski, NIST, USA (RB)
Paul Everall, UK (PE)
Wataru Gojo, NILIM, Japan (WG)
John Haysom, NRC, Canada (JH)
Brian Meacham, Ove Arup, USA (BM)
Lam Pham, CSIRO, Australia (LP)
Tomoki Sera, MLIT, Japan (TS)
Sian Smith, Ministry of Economic Development, NZ (SS)
Mike Stannard, BIA, NZ (MS)
Jose Tenorio, Spain (JT)
Russ Thomas, NRC, Canada (RT)
Beth Tubbs, ICC, USA (BT)

Apologies

Javier Serra, Spain
Olav Berge, NOBTH, Norway
David Smith, CEBC, RICS, ODPM, UK (DS)
Milosh Puchovsky, NFPA, USA

ACTIONS

ID	Action	Action By
1	Website access for members to start making more use of the members portion of the website	MB (ABCB)
2	Hot water temperature limitations from each country	All
3	Spain to provide a presentation of the new tool being introduced online.	JT
4	Provide links to review online objective based code	BB
5	Residential sprinkler issues to be posted on IRCC website.	MB & BB(NRC Canada)
6	Sharing information at follow up meetings (example automatic revolving doors) and post on IRCC members portion of website	TS (revolving doors) All IRCC Members (ongoing)
7	Results of ABCB's review posted on IRCC Website	MB
8	Website, charter and other information needs to be reviewed and updated to reflect new chair and secretariat	BIA and ABCB
9	Follow up summit organization and check Japanese conference on Sustainability to see how it might affect IRCC Summit in Australia	RB, MB
10	Members share relevant lawsuits and other legal actions of interest	All IRCC Members
11	Standards papers on Website	RB
12	SFPE Papers for Luxemburg Conferences posted on Website	RB and BM
13	"Fire as a Structural Load" article Posted on Website when published	BT
14	Website link to UK task group recommendations	PE
15	Membership invitation to Austria	PE, MB, MS
16	Membership invitation to Singapore	MB, MS
17	Membership invitation via Rodney Milford for South Africa	MS
18	Report back on China in November	MB, RB
19	Norway question regarding mediation emailed to members for response	BB
20	Update in Japan on issues of risk based upon comments from Members	BM
21	Issues related to Risk forwarded to BM to focus November discussion	All members where applicable

1.0 Opening remarks

BB opened the meeting and directed self introductions of the members were made.

BB reviewed meeting logistics in terms of the building and facilities. Dinner is at 7PM at the Garden Terrace.

BB discussed the protocol of the meeting regarding the confidentiality and frankness. Also emphasized the need to spend extended time on country updates. Explained use of the term parking lot. Basically issues that are not on topic but are in need of discussion.

RT requested the fire engineering guideline document be discussed. **BB** added to other business.

Francoise Szgeti passed along a document on International Alliance on Interoperability and would like to add to agenda for discussion under other business. Standards on whole building functionality. Placed under other business.

BB also requested adding an item to discuss attaching of performance requirements with property deeds on significant performance design. Placed under other business.

BB also requested an item to talk about what happen when a question is circulated from an IRCC member and answers received and to record for later reference. Example automatic revolving door issue. What approach should be taken. Placed issue under other business.

DB asked to add the latest update on WTC investigation to agenda. **BB** placed as agenda item 7B.

TG37 update to be provided during Country Updates.

BM suggested that 4, 11, 16 be bundled together.

BB received a question from Norway on mediation roles. They are looking for guidance. It has been placed on the parking lot.

2.0 Record of IRCC 15

Reviewed minutes and the actions listed.

A lot of issues sitting in parking lot. Someone needs to take the lead.

BM would like to have the Secretariat to re release the website access for members to start making more use of the website. **[ACTION 1]**

3.0 Country Updates

Canada

BB provided the Canadian update. He provided a packet of information with various resources. Had a meeting in April to final format and technical changes to objective based codes. Couple subjects need further review including seismic, hot water temperature limits, and resistance to lateral loads. Seismic more of an issue in the east due to the type of soils found. Ontario will not accept the requirements. Deferred seismic provisions for acceptance until September. Concern about the methods being too complex and engineers would not be able to undertake. Cost becoming more explicit issue when looking at new provisions. This is a difference than in the past.

DB discussed the changes in qualification requirements.

BM would like to discuss seismic further as this is an issue he is dealing with in an ATC (FEMA) in the US. They are looking at broader stakeholders needs from a risk approach beyond the regulations themselves. Curious how Ontario as stakeholders are addressing this.

RT brought up the issue of frequency of change and want more stability. **RB** noted that ICC Industry Advisory Committee looking for longer cycles.

DB noted that most of the concerns on cost come from the provinces versus industry groups and others. This is due to the more integrated process with the provincial government. **BB** has set up groups that engage the provinces to avoid problems later. They work together on issues versus the issue being that of only one province. It is a national process – no longer federal or provincial. Taken much more time and effort to continually keep in consensus. Seeing strain on smaller provinces to keep up with larger provinces. Will review how the process went after it is implemented.

JA noted that sometimes Cities come forward with problems (Toronto)

BB looking to the next code (2010) as to how it will be addressed. Identifying priorities within the provinces. Technical committees have not typically been told what to address

Hot Water – **BB** noted that Safe Kids Canada pushed for the temperature limitation. Set requirements and went for public comment. The minimum temperature was different than that used for energy conservation. Provinces raised the issue and a ad hoc committee needed to be created. Some water heaters more vulnerable to lower temperatures (bacterial issues)

MS noted that NZ had a minimum temperature to be 60°C. PE discussed that they had addressed the issue also for minimum temperature. The larger differentiation between storage and use makes it more difficult to achieve. Became a political issue.

JT noted that bacteria is more of an issue than scald safety and the allowable temperature must be between 50 - 65°C

All members to provide hot water criteria. **[ACTION 2]**

Strategic Plan – **BB** reviewed plan. Looking at undertaking more risk based assessment of code changes. Will continue to advance the code development process.

Traditionally have not been a role of NRC to participate in education and qualifications. Has changed somewhat due to implementation of objective-based codes. Government typically gives several million (2.2) for funds and get the rest of funds from sale of codes. This may change as protecting intellectual materials is becoming more difficult. Looking at new business model. Education or other perhaps more government funds.

Looking at ecommerce and pay per view services of the code. Also looking at a code change tracking system.

JT explained that they had a online process in Spain and it seemed to work well. Central reference point. New system being introduced. **JT** will provide a presentation of the new tool being introduced [**ACTION 3**]

Product Evaluation – **BB** looking at ways to address evaluation services beyond the current NRC evaluation process. There was not a formal system that was working at the level necessary. Wanted NRC to take the liability for the evaluation acceptance. The infrastructure sector had a product evaluation system from the marketplace not a 3rd party process.

Sustainability is now and initiative integrated throughout all of NRC's work

Security Code – **BB** noted that there is activity to develop a security code for federal buildings. This is driven by the police who are responsible for security. Getting support policy wise from treasury department. Public Safety And Public Preparedness a new agency or Canadian Government similar to US Department of Homeland Security (combined existing agencies). The document is intended as a framework to develop a code. The acoustic group will come up with actual requirements based upon this framework. **BB** noted that having objective-based system helped the discussion. The objectives were circulated at the meeting.

BM noted that in the US there is an Interagency security committee. Was very prescriptive until US NRC had a committee to look into making the provisions in performance terms.

Objective-based codes. **JH** reviewed online the code prototype including Part A and Part B. Showed the interactive nature of the document. Makes it clear that acceptable solutions are allowed and the alternative solution must be at least as good as the acceptable solution. (Website references) **BB** to provide links to review online [**ACTION 4**] National Codes.ca

UK

PE number of changes in UK. Emphasis is growing on sustainability. Housing affordability is becoming a large issue driving building regulatory area. Areas of new development are in low lying areas and may be susceptible to flooding.

Sustainable and Secure Buildings Act. If it proceeds through parliament will be addressing a host of new sustainability issues. New act would allow regulations to address security which was not possible before. May be a better balance having security and fire together.

WWF are supporters. Sustainability is to political and issue for builders to fight. More likely during the regulation drafting process.

Conserving water will be a new aspect to the regulations. Growing concern that the water supply will not support new housing development.

ODPM has a committee called select committee from parliament. Allows investigation of particular issues. First time in 15 years PE was summoned as to why the building regulations were not addressing the environment.

Disability issues. – Comes into forces in October this year and will be able to challenge the building owners. Reasonable ground for not making all existing buildings accessible. The documents will become support for existing buildings as to what is unreasonable.

Some are already pushing for lifetime homes.

Parts A and C about to be republished. Part A structures was changed to be consistent with the Eurocodes. Part C is important as it deals with sustainable issues. More buildings to be placed on contaminated sites.

Sound Insulation – new regulations in force which required testing on site. Builders were very upset about field testing. Sounds between units – airborne and impact sound. Also between uses such as bathrooms and living rooms etc. Outside sound issues were part of the requirements initially but received too much opposition. Probably an issue in the future.

Thermal insulation and ventilation – consultation needed to be fast tracked due to a change in the deadline from 2008 to 2005. Trying to involve industry in the process. Approved a consultation package and will send out this July. The more we seal our homes the more indoor air quality becomes an issue.

Building Energy performance directive. EU has a energy directive outside of CPD. Does not actually save energy but raises the profile of the issue. Buildings will need to be certified as to energy use. More inspections of building systems and components such as boilers. Ongoing maintenance is a large component. Implement by January 2006.

Fire Safety – Trends in the right direction for fire deaths but the requirements are continually being pushed higher. Push by some to sprinkler all residence.

NZ and Australia developed a cost effective residential system. Can be installed by plumbers. Cost of approximately NZ \$3800.00 in a small two bedroom house. Forward comments to **PE** on residential sprinkler system.

UK moving towards fire risk assessment versus prescriptive regulations for fire planning and maintenance.

Building Control Problems – regulations have become more complex and creating it more difficult to have qualified authorities. Energy provisions being ignored by authorities - lack of training and do not see as life-safety.

Getting more in the business of training. Thinking about e-training

Perhaps certain areas of regulations should be self-certified. Replacement glazing , boilers etc. Electrical safety may be next. Electrical is becoming an issues as the local authorities have never enforced before.

Lay down criteria to determine qualifications for authorities.

Need new methods of construction for housing to produce more affordable housing. Looking to IRCC members to share new methods of construction.

Monies for research is dwindling (typically £5 or 6 million - now only ½)

Scotland just revised regulations and more performance oriented provisions. Fire provisions more stringent due to the fire masters in Scotland. Setting a new agency

BB questioned whether we should look to Scotland for participation in IRCC. **PE** thinks that they will be interested in participation once things become stabilized with the new regulations. **MB**

[ACTION 5] Residential sprinkler issues to be collected and posted on IRCC website. **MB and BB(NRC Canada)**

Spain

JT provided a CD with the building code and the Spanish version of the Eurocodes, various information from the European union. In variety of languages.

Have a new law for sound.

Sent new building code to Brussels in January 2004. A publication consultation occurs with member states (3 month – translated in Brussels then reviewed by member states)

More than 2600 comments during initial review of building code. Part I is qualitative and Part II is technical details/ acceptable solutions .

Next proceedings needs to be approved by Council of Ministers. Needs to be published in public gazette.

Trying to work with the CPD and Building Energy Performance Directive.

Undertook a case study with sound in 31 buildings. Making a catalogue of products that can achieve the sound provisions.

Ministry is changing due to the elections.

Trying to work with universities to assist in training.

Code does not address accessibility. The law addresses safety, health. The local communities address accessibility. Last year a new law addresses the fact that all people must be equal. Housing industry has a guide currently.

US – ICC

Code Development

- 18 month cycle (code published every three years)
Approximately 1000 Code changes (Final Action Hearings next week – approximately 580 have registered so far)
- Releasing 2004 supplement this summer
Accepting Code Changes for 2006 code cycle – deadline August 20th

Code Development

- Ad Hoc committee for existing buildings code created to review how it links to other I-Codes. There have been controversy about its applicability. Ad hoc committee will review
 - Overall content
 - Technically Unjustifiable provisions
 - Discuss the various obstacles to adoption
- Station Night club (Sprinkler threshold being reduced from 300 to 100, crowd managers may become a requirement for Assembly occupancies)
- Code Action committees (fire related) formed. These type of committees help to provide for more global proactive changes needed for the codes.
- New concerns from industry that the frequency of publications needs to be longer in order to keep up.

Code Adoption

- Over 690 Jurisdictions adopted I-Codes Last year
- NYC is in the process of reviewing and adopting

Performance Code

- Focus is primarily as a compliance alternative
- Jurisdictions with activity
 - Pennsylvania – adopted as a compliance alternative
 - Decatur Alabama – adopted about a year or so ago
 - NY State is forming a committee to review
- Discussing how review services could be provided

Other

- About to publish
 - Performance Concepts Book – Meacham (ICC)
 - Code Officials Guide to Performance Design Review (ICC/Society of Fire Protection Engineers (SFPE))

- Working with ABCB, NRC Canada, BIA on International Fire Engineering Guidelines (ABCB, BIA and NRC)
- Veeck Case – discussed the affect the court case is having on future of codes and standards in the US.

TG37

The work of the Task Group is complete

Meeting May 7th in Toronto – short meeting. Allowed a good discussion on the key findings and recommendations. More specifically what direction for the future we can provide. TG may be too extensive to keep up with but perhaps a way to link IRCC priorities with specific task groups and working commissions. Perhaps W60 (performance buildings) could have a subgroup focused upon regulatory issues that could reference priorities to appropriate WC and TG's

CIB Maintain an interest in performance regulatory systems. The concept should not go away and to recommend some methodology to CIB for ensuring regulatory issues surrounding the performance concepts in buildings is addressed.

New Zealand

MS – overview of current environment, weather tightness, Business strategy, new building law.

High level of activity especially housing. Auckland has had the most demand. Commercial activity steady . Have had a school shortage.

BIA undergoing huge change. Went from 13 to 50 staff and potentially more staff. Will become a government department.

BIA central authority, territorial and private building surveyors write building consents (permits) – 74 Territorial Authorities, shortage of staff and lack of young persons in the field. BIA is trying to facilitate training and education. No university level education program.

Accessibility requirement has not been well applied. Assessment of alternative solutions not particularly well assessed. Putting together guideline documents.

Only 14 private building certifiers – process 20% of the reviews. On average technically better. Issues of the need of having private building certifiers to interface with territorial authorities. Undertaking an insurance review to take a look at what is being excluded and whether they need to revamp the insurance framework.

Weather Tightness Resolution Service (WTRS) was implemented. Initially focused on apartment buildings but many single family dwellings are now included. Currently only 1% failure overall based upon the building stock. A lot of litigation occurring. BIA is 5th named and BRANZ is also included.

Territorial authorities have become very conservative. Won't issue code compliance certificates in many cases. . **BM** Any correlation between warranty time frames? The warranty time frames are usually fairly short and depends upon which element of the building the warranty is for.

MS noted that it is very much related to the style of houses. Also related to relaxation of timber treatment requirements. Moisture was not able to escape from the timber. Acceptable solution requires treatment again.

Response has been to review the acceptable solutions. Issues around Douglas fir as it does not treat easily. Fought the industry. Doing some cooperative research with Douglas fir industry. New Acceptable solution has much more detail on what can be accepted.

Code development has typically been a bit more ad hoc instead of doing research ahead of time. This will change in the future.

Having interesting issue of minimum size rooms in apartment buildings due to a trend in the design of very small apartment units for students.

BB wondered how the system was going to be monitored. **MS** noted that a whole new division is being added for that aspect.

New Building Bill – going through parliament currently. Gives central regulator more teeth. Introduces high level responsibility (qualifications). Will be part of the Ministry of Economic Development (MED). Sometime early 2005. The BIA will be absorbed into the MED the title BIA will go away.

New licensing requirements. Will have accreditation requirements over time. New product certification scheme coming. Currently have product accreditation system. System so rigorous that not well used. Will have certification body center such as BRANZ

Code requires a full review based upon the new bill. This review will take three years to complete. More guidance documents will be released (commentaries).

The New Zealand fire service will require more commenting on alternative solutions and higher risk buildings.

Discussed briefly the code review process being planned. This includes consultation, review of international documents, framework development and review, etc. Need to define amenities and sustainability. Sustainability is focused primarily upon water conservation and energy currently.

Japan

TS – 2 topics today.

Existing buildings – large focus on upgrading existing buildings due to concerns of seismic threats. 30 % dwellings do not conform to new requirements. 40% other than dwellings not conforming.

Looking at improvement of onsite inspection. Precaution procedures to target dangerous buildings. Upgrading may be required for these buildings per the authority.

Looking at the ability for partial compliance with current requirements this avoids the avoidance of any upgrades. Can also phase in changes in a step by step compliance approach.

BM asked if they were looking at building security. **WG** noted that in the housing performance system there is discussion dealing with security in terms of breaking an entry.

Automatic Revolving Doors – see presentation. 131 people injured out of 264 accidents. Japan does not have product standards for revolving doors. MLIT formed a technical committee on April 8 for drafting a safety guideline. Even though they did not have a standard many of the doors are imported from countries that have standards such as Europe. Owners may have changed range of sensors due to constant stops.

Compilation of data will be placed on the members portion of the IRCC website **TS** [ACTION 6].

Australia

MB provided an update.

ABCB Review. Reviewed activities of ABCB again (5th time in 10 years). Interviewed internally at ABCB and States and Territories as well as a public call for comments. List of 56 questions that had to be addressed. Industry have submitted responses. The results will be compiled and the need for ABCB will be confirmed either way. Basically the government wants to determine that they are getting the benefit for the investment. States and territories agreed to accept the national review process instead of undertaking their own review of the role of ABCB. The document can be reviewed since it is public knowledge. Perhaps this can be placed on the IRCC website [ACTION 7]

Access – apply to all buildings, new and existing. Most comments ask that the proposal be phased over a number of years. In an election year and may have a large effect.

Trans Tasman Building Regulatory ?????? Committee (TTBRRC) – aims to bring together senior folks from NZ and Australia (Board member, commonwealth, Ivan Donaldson and **MB**) agree to many different joint activities (certification, organizations etc). Placed in \$50,000 dollars each to explore benefits and logistics of such a relationship. Even if a negative cost benefit will probably go ahead anyway. We duplicate and repeat work often.

Product certification. Developed a process to outsource product certification. Outsource to ??????.accredit certification bodies. Several labs and organizations such as CSIRO have expressed interest. Use ISO 65 for level of rigor.

4.0 IRCC Chairmanship and Secretarial Support

Discussed briefly and **BB** suggested that **MB** be the new chairman. **PE** noted that having a consistent chairman would be beneficial. The group agreed. **MB** (Australia) was named the new chairman.

New Zealand agreed to be the secretariat. ABCB would continue to maintain the website.

Website, charter and other information needs to be reviewed and updated to reflect new chair and secretariat.[**ACTION 8**]

5.0 Future Summit/ Summits

Couple future opportunities – Luxemburg and then Australia. **BM** did the bulk of the work. Tends to focus on a few people. Need a lead person and an entity to manage the process. The first summit was ICC.

Very broad scope in first summit. Need a lot of funding for academia to participate. Need funding to get certain folks participating.

BM noted that he ended up driving the direction of the summit. Wanted people outside the building industry and it was a bit difficult getting the contacts. Got a broad group of people. Building regulation in DC is not on radar screen in many cases (not a federal issue in US). Did not want a technical conference. Were able to get a variety of people who would not have participated otherwise.

PE disappointed with IRCC with regard to lack of Europeans and also the focus upon American System. Should not be assumed that we have further summits but the meetings themselves are beneficial enough. Focus on an issue such as accessibility or sustainability.

MB noted that Singapore developed a tool to deal with all approvals electronically including performance. What type of standards environment should Hong Kong adopt. These could be issues of interest.

Don't have to call it a policy summit. Generally trying to stay away from Technical details.

Want to make sure that the conference is advertised for what it is and the audience will fit more appropriately.

PE and BT should try to link into other organization's meetings such as ABCB since IRCC does not have the resources itself.

BM looking to have a summit in Luxemburg a day before (around 20 people). It will be small scale and focus upon the participation of developing countries. Have remaining funding from NSF. Could push off until Next year to combine with ABCB conference.

BM - There are 10 new countries in the EU. Contact information is key.

After further discussion in Item 6.0 it was decided that the venue in Australia would not be the appropriate forum for the NSF funding but would still be a good opportunity. See item 6.0.

6.0 ABCB 2005 Conference

Already having a conference and will have 6 of my staff that organize all conferences. Simply adding another day to the conference. Many folks within countries in Asia could be considered developing countries in terms of NSF funding.

BB wondered if there was a subject. **MB** said it is up to IRCC. ABCB's Conference theme is energy, access, sustainability, BCA 21, product certification. Trying to get sponsors to defray the cost of the summit.

PE perhaps the same issues for ABCB but more from a policy standpoint. Rather than entirely separate.

Are we doing this on a regular event or simply an opportunity. **BB** think we answered question that on our own is not realistic. **PE** also agreed we should focus only when opportunities are there. **RB** volunteered to lead from a program standpoint the one day conference. **PE, BM, BT** (if possible), Japanese representative would be interested in the planning process.

SS noted that Sustainability would be an excellent topic for one day.

Dates currently 11-15 September 2005 tentatively. Kevin Newhouse would likely be the main contacts.

Day and ½ is desired to more folks to justify coming to the conference.

Dates are flexible in terms of before or after ABCB conference.

The term accessibility might be an alternative or perhaps adaptable housing. Life time housing (UK)

BM noted that a single focus is not appropriate for NSF funding. Luxemburg and other opportunities might be better.

RB, MB follow-up on organizational aspect and check on Japanese conference on Sustainability. [ACTION 9].

7.0 NIST Fire Study

RB discussed the collaborative testing and research project in fire. See handouts.

8.0 Canadian Lawsuit

BB provided an update on the Canadian Lawsuit. Handout provided. Affected buildings from 1985 to 2000. Class action dismissed and was confirmed through the appeals process. Court case decision is attached.

Second case homeowners sued provincial government (Alberta) since their roofs turned black but the roofs did not fail. Decision focused on the fact that building codes are there for health and safety not durability. No authority to regulate durability. Also made similar statements in reference to the BC decisions. NRC does not have a duty of care to the homeowners.

PE found the information helpful and noted that he would like to take a look at Liability in the UK. Increasing concern surrounding warranty companies.

Members are encouraged to share legal activities relevant to IRCC with other members where appropriate. [ACTION 10]

9.0 Standards – role and structure as a reference document for performance codes.

JT had several documents on standards related to European environment that Javier Serra put together. Website http://europa.eu.int/comm/enterprise/standards_policy. These documents provide a general view of standardization in Europe.

RB noted he had written a couple papers in this regard. He will have them posted on the IRCC website. [ACTION 11] **BM** and **RB** published papers for Luxemburg and will make available. [ACTION 12]

BM discussed the AISC activity. They are seeking partners as to how to do this in the future.

BT wrote an article on “Fire as a Structural Load” Will circulate when published. [ACTION 13]

10. Standards Australia – Forced Standards Australia to take policy statements out of the standards. Reviewing standards to remove public policy statements. Standards were a way to make requirements uniform but over the years placed too much policy statements in the standards.

BM mentioned the work of ATC 58 Performance Based Seismic design Guidelines. Website www.ATCCouncil.org

Standards Australia International produces standards. Standards Global publishes etc and are for-profit (gone public- commercial) Seems to be a conflict of interest between organizations. Many constituents unhappy.

BCA has a document that sets criteria for accepting standards and some are working outside of Standards Australia. Essentially many industry group wanted a standards writing opportunity that worked outside of standards Australia so they would be able to recoup research and development costs but still have a fair process of development.

ABCB writing a sprinkler standard since the sprinkler standards through Standards Australia was much higher than necessary.

BB wondered how the new approach of industry writing standards (meeting criteria) affects trade agreement. **MB** says the government officials are actually more comfortable.

Standards referencing issue - Over 2000 standards now referenced many are secondarily referenced. Primary reference 148, secondary 956, tertiary 1327. ABCB folks on committees can look at management software of SA to identify standards references. Revising to remove unnecessary or incorrect references.

11. Future Direction of IRCC

Handout provided to guide discussion from Japan.

Japan – important network. Perhaps follow up with projects on specific issues. This would involve compiling data and creating reports. Also to have international events every 2-3 years.

New Zealand - Extremely valuable network and need to be a part of. Makes it much easier to network which could not happen otherwise.

US

ICC – Almost like a mini-conference but three important components

- Collaboration
- Exchange
- Outreach

All of these done on a realistic scale based upon the level of activity in our roles at home.

NIST – Very important from personal standpoint and bring the research community more in touch with the regulatory needs.

BM – Collaboration very important and we need to reach out to those struggling with these issues.

Spain – very important network. Taking specific topics and producing guides or similar documents.

UK – Extremely valuable for exchanging views. Concern about projects between meetings.

Australia – Valuable resource for exchange. Need to look to new members. Feel that meetings should be 3 days. Interest in areas such as Quality of buildings and other areas that may or not be regulated but are of interest. Looking at the long term regulatory radar screen.

WG – perhaps the term project team is not a good one but having someone lead a task of writing a paper or similar tasks. Try to involve outside groups – need a channel to invite specific outside groups.

BM – the IRCC was the group that leveraged the NSF funding.

Canada

BB- network is critical. Never have a single building code – different legal framework and other differences such as culture. Country updates are fundamental. Use the group to calibrate ourselves. Questions about international activities increasing within Canadian Government. Need someone who has a reason to champion an issue.

Group decided it was time to reach out to new countries.

Need to discuss potentially if CIB chooses to start another task group.

DB – found TG37 a good experience but there may not be the need to be part of CIB to address these types of issues. Agreed that we would continue to network beyond CIB. Interest is driven by domestic needs.

Measurable performance is going to be an important issue.

BB tried to summarize – good start to a network and need to continue and expand the network. Need challenges. Country updates were fundamental. Presentations help keep it organized and easier if English is not the primary language. This meeting was very successful and should run the next meeting the same. Three days is important and should continue.

Identify topics we want to pursue and will need a leader. Likely need a domestic push. Historical building may be one of those issues in the future from Canada's perspective.

Research Priorities – need to see how we deal with that.

Each meeting 2 parts

- Country updates
- Specific topics

Would like a summary to follow up with on the IRCC website for future reference after data on a topic such as that collected for “revolving doors.”.

Use the group as a resource.

WG noted that the presentations were helpful but more supporting documents, where appropriate, are more helpful.

MB perhaps we should term it “members update” instead of “country updates.” **BB** cautioned that we need to focus first and foremost on the regulatory aspect. If we have more members it may be more difficult to complete.

12. IRCC – Guidelines for the Introduction of Performance Based Building Regulations

Discussed a variety of times what we should do to update. **BT** noted that it probably is too large of an undertaking unless there was a champion. **PE** agrees that revising entire document is too large an undertaking. **BB** noted that it represents a point in time. That does not preclude members from taking portions of the document and reviewing and revising as needed. Acknowledge there needs to be a domestic need to take on such a task.

The document was distributed by individual Chapter during an Australian conference. Update where there is a need.

13. Sustainability – Country Summaries

Australia

MB provided an update. 12 different items which may be considered for building regulation

Will have facilitators to see if and how it might apply in terms of the scope of the regulations. The first question is whether sustainability should be regulated in the building code.

The ABCB board generally feel that this is a planning issue not a building regulation issue. Anticipate an interesting debate. Planners do not have to do cost benefit analysis.

How do the states and territories look at the need? (**JH**). **MB** noted they know that it is politically sensitive issue.

Probably only 2 or 3 issues will end up into the regulations others may potentially be dealt with in guidelines.

Japan

Sustainability not in the building regulations. Introduced housing performance indication system to help increase the quality of housing. Since 2000 Voluntary labeling system introduced. See handouts.

Japan has a very unique way of looking at sustainability which looks at a variety of aspects. Looks at cost and other aspects and are able to determine cost effectiveness. This model is simply conceptual. Overall scoring system may have to be input which is subjective versus focusing on elements.

BM how are the rankings developed? **TS** noted there are 3 to 5 ranks per field. Minister issues standards for evaluation.

Spain

JT reviewed handout for both mandatory and voluntary approaches. Many of the tools do not work with existing buildings. Currently addressing this issue.

Looking at certifying the building.

Participating in Green Building Challenge.

New Zealand

MS noted that currently the building regulations do not address sustainability but are referenced in several acts of parliament. See handout. Energy efficiency is addressed. The purposes of the new bill mentions sustainability but it is somewhat unclear how that will apply. “Sustainable development” not currently defined but specific direction is provided to the Chief Executive of BIA.

- Durability,
- Lifecycle costing,
- energy conservation (renewable), and
- water conservation.

Could extend to construction waste and recycling.

UK

A lot going on in the area of sustainability in UK and will follow-up in the next couple weeks. New legislation will allow them to draft building regulations related to this.

Currently:

- Energy Conservation
- Water conservation (just starting)

Will be expanding based upon new legislation. Have not thought how these new powers will be used. Waste materials etc. In a years time more development may have occurred. Have a sustainable buildings task group and will give recommendations on building regulations. Thought is to phase requirements into the regulations. Will provide a link to that information once available (website link) **PE [ACTION 14]**

US

ICC – not specifically addressing sustainability but address in pieces. ICC has a Model Energy Code. Also various code requirements such as low flow toilets address water conservation.

NFPA is in similar position

Canada

Provinces would love to regulate but the ministries in the provinces would rather not address this. Developed model energy codes but they are not being adopted. One of these codes is based upon ASHRAE 90. Have a performance option. Published in 1997 and been adopted sporadically. Ontario has references to these codes but not sure how much it is enforced. Mechanical engineers have been known to use the codes and ASHRAE 90. Provinces that have not adopted an energy code do have energy efficiency components for houses. About 92% of the new housing stock is regulated but not directly by the codes NRC produced. Government have not given a clear signal that they want to regulate consistently across the country.

There is an incentive programs but only 500 houses a year have been built under this (R2000). Not just energy. Technology has trickled to most houses. NRC Canada is responding to Kyoto protocol. R2000 is suppose to apply to all new houses by 2010.

Could conflict with Heritage (NRC Canada) **BM** due to protecting non-efficient buildings? JH looking long term to avoid being in that conflict in the future.

R2000 has improved and changed over the years.

14. Moisture Management of Exterior Walls (MEWS)

Mike Swinton provided presentation about the MEWS project which creates an indexing system for moisture conditions in various regions of North America. IRC's response to the fundamentals and tools to understand what is going on.

Large losses in North Carolina, New Zealand and British Columbia

Collective process. Many different sectors.

Understanding the regional issues was important as some areas need less protection from moisture than others. Tested several hundred different scenarios to understand how moisture affects structure.

Currently grappling with how it can be used for the product certification system. The index created has assisted in understanding the regional differences which affect the degree of requirements. Wind driven rain index. Rainfall and wind index and relative humidity. These indexes are available in the US as well.

NZ has been doing some testing. Changed verification method for cladding.

15. Application of Performance/Objective-based codes to Heritage Buildings

Peter Froom, Director, Historic Places Program Branch, National Historic Sites Directorate discussed the Canadian situation. Claire ????? from NRC Canada was also present.

Have listing of historic places and now standards and guidelines for historic buildings in Canada. Have been adopted by Parks Canada, federal heritage review office. Adopted by Alberta and Labortor.

Heritage and codes are perceived to conflict. Hear many stories of the challenges that building codes represent. Trying to be more systematic.

Looking at international experience in this area. Work and participate with groups such as APT – Association of Preservation Technologist in the US. Looking at other codes

In UK they formed a guide to use with Heritage buildings. Worked with Heritage Department. Developer/Owner and local official work out a reasonable approach.

The EU will have a code for existing buildings.

RB noted the NFPA documents related to historic buildings. NFPA 914. Discussed many of the details that are contained within NFPA 914 that are specifically geared to the sensitivity of historic structures. Compiled an extensive list of fire performance of archaic materials. Park service and GSA are tied into this process.

BT noted the ICC existing building Code and noted the emphasis was on the larger scope of existing building but not a specific focus on historical structures. ICC Performance Code provides a communication tool in this regard.

BM noted the use of 101A with a scoring method may be helpful. NFPA 551 addresses fire risk assessment. Some type of framework upfront assists the analysis.

Australia does not have extensive historical structures. More of a focus upon the façade and other non-life safety issues.

NZ is similar but do have historic meeting houses that have only one egress and are quite combustible. BIA does not have specific historic building code provisions per say. Mostly planning regulations. Seismic retrofit for facades has occurred in NZ (un-reinforced masonry).

Japan has mostly wood heritage buildings from Samurai era. Exempt from building law. Cultural Property Protection Law protects such structures. Looking at new programs for such buildings. No longer allow partial concessions to buildings. Local fire authorities undertake inspections on a regular basis. Have emergency drills and similar activities.

BB noted that cost has been a larger influence and has created a new tone on building regulations.

Discussed costs as a factor. Example high-rise retrofit law in Boston which allows cost to be factored into the ordinance for sprinkler retrofit.

Renovation industry is larger industry than new construction. Guideline route seems to be the best approach - **BB**

16. Membership – invitations to other countries

Discussed membership in general. How do we refer to the members? Lead regulator drafting bodies and there are others that do not quite fit who represent people that are directly associated with the regulatory community. Trying to define membership clearly to ensure that all necessary people can participate. This needs to be taken into account for new members. (Members and Associate Members)

PE happy with the two tiers of participating members.

BM not sure that an associate membership is necessary.

MB two levels of membership helps to justify travel expenses and also to ensure the appropriate persons are participating.

Agreed current member application was sufficient.

Discussion regarding why performance codes are specifically mentioned as we address many more issues.

New Applications

Austria – **PE** received interest. They are harmonizing their regulations and looking at performance codes. 9 provinces have set up a national organization. Body charged with developing performance based regulations. IRCC will send letter of invitation, **PE**, **BB** and **MS** [ACTION 14] May be interested in the October 5th meeting in Luxemburg.

Singapore – **MB** noted of their interest and requested that they be invited to the November Japan meeting. They draft building regulations. **MB** has already requested information. Olav Berge had also requested that Singapore be invited. [ACTION 16]

Hong Kong – **LP** noted the current confusion on who is leading the drafting of regulations. May need to wait until they establish. **BM** the buildings department is doing work on the fire provisions. May not easily find an all encompassing agency **BM**.

South Africa – due to the summit became very interested and are currently starting to look at performance regulations. They can further explore participation on IRCC. **BM** prefer we contact government. **MS** can email Rodney Milford to find the best contact. [ACTION 17]

China – **MB** unclear whether it is a good fit at this time. Difficult to determine who the correct group is. **RB** has a meeting in China in September and may get a better feel of the situation. **MB** and **RB** to report thoughts in November [**ACTION 18**]

17. Parking Lot Issues

1. Seismic design changes in NBC (**BM**) – **BM** shared a document from ATC. A more final document will be available by the next meeting. Describes the program FEMA is developing for performance structural design in terms of losses (life safety, property, dollars). Limited circulation at this time.
2. Frequency of Code Updates/ Capacity to absorb changes (**RT**) – not necessary to pursue but relative.
3. Maximum Hot Water Temperature(**BB**) – Canada will contact if more information is necessary. Much more complex than initially **ASPE** put together a task group to put together a standard. Safety, health, manufacturers etc.
4. IRCC Website sharing of residential sprinkler issue (**BB**) – Place various reports and other information on the IRCC website.

18. Other business

1. **International Fire Engineering Guidelines.** **MB** gave overview of project (objectives etc). Working initially with **NRC**, **ABCB**, **ICC** and now **BIA NZ**. Planned to be completed end of 2004.
2. **International Alliance on Interoperability** – introduced by **Francoise Szgeti**. Drew attention to this in Washington in Nov 2004. The subject is very broad and dealing with overall performance building concept. This deals with the overall interoperability of building systems which is well beyond building regulations. Useful reading but perhaps well beyond the interest of **IRCC**.

JT noted that Spain has been involved in addressing this issue within buildings and trying to integrate software. Important for building regulations so we need to stay linked and offered to provide more information if necessary.

Might try to keep up to date but it is simply information for now.

3. **Significant alternatives for performance design on deed restriction.** Discussed the fact that it ensures that new building owners will specifically find out specific acceptance conditions of a building.

New Zealand did not have such a system. Compliance documents are sufficient.

Housing covenants in the US are sometimes filed as deed restrictions.

Warranty of fitness in NZ is only for commercial building.

Discussed a variety of issues specifically how much information will be provided due to security concerns in the future.

Many good points. May or may not always be the best approach to have it on the deed. May be perceived as negative if on the deed. Record keeping can become an issue in the future.

Materials in UK are thought to be the property of the building owner and is copyright. The only thing the public can see is the completion certificate.

Some engineers are copyrighting their designs in New Zealand so others can not use the method.

In Japan the building law is required to maintain the compliance documents. If local authorities approve the local jurisdiction retains if approved by Ministry the ministry must retain compliance documents.

4. **Norway Mediation question.** Trying to look at reducing the number of appeals on building permits. Australia has an example. BB to forward email to committee. Provinces have programs that address this. (Builder and Owner). **[ACTION 19]**

BM noted that there was no mechanism for enforcement at certain stages. Issue that he noted when visiting Norway.

5. **Sharing of information.** BB suggested that when questions are asked of the Members such as the information collected on automatic revolving doors that such information be shared at the follow-up IRCC meeting. The information that was provided by the Japanese was very helpful. **Action Item 5.**
6. **WTC Investigation.** RB presented summary of Feb 12, 2004 meeting. Materials located online www.wtc.nist.gov . Trying to avoid knee jerk reactions through a thorough review of the incident. Buildings 1, 2 and 7.
7. **Sprinkler standard** – Australia trying to work with Standards Australia and they would not change. Was industry dominated. Asset protection, business continuity etc which are well beyond the code. Convinced Australasian Fire Authorities to work on a new standard.
8. **Risk.** BM had observation and question of using risk concept. Might want to look at down the road. Issue of interest to Canada. Have not yet addressed the issue. How we do these assessments and cost benefit analysis. Perhaps provide an update in Japan. **[ACTION 20]**. If members could send questions to BM to focus the discussion **[ACTION 21]** Draft common concerns and needs. Who should have the discussion.

19 Next Meeting.

2004

- **Japan** - November 10 and 11. Adding in another day would be 10, 11 and 12 in Tokyo. May be hosted at BCJ. Hotel information will be forwarded.

2005

- **London**, May – date to be determined.
- **Australia**, September (11-15 Conference – meeting to be determined)

20. Adjournment. THANK you to Bob Bowen and Mike Balch for their continuing role.

Meeting was adjourned approximately 3:00 PM.