

**Inter-jurisdictional
Regulatory Collaboration Committee**

**12th Meeting
15 - 17 October 2001**

**Held at NRC
Ottawa, Canada**

Summary Record Of Discussions

| | |
|------------------------------------------------------------------------|----|
| Present..... | 2 |
| Apologies | 2 |
| Opening Remarks..... | 3 |
| Agenda Item 1 - Record of IRCC 11 th meeting | 3 |
| Agenda item 2 - Country Updates..... | 3 |
| Canada..... | 3 |
| United Kingdom..... | 4 |
| Spain..... | 5 |
| Japan..... | 5 |
| New Zealand | 5 |
| United States of America | 6 |
| Australia | 6 |
| Agenda Item 3 – International Conference | 7 |
| Agenda Item 4 – Fire Safety Engineering Guidelines | 11 |
| Agenda Item 5 – IRCC Document Developments..... | 11 |
| Agenda Item 6 – IRCC 11 - Action Outcomes | 12 |
| Agenda Item 7 – ABCB BCA On-line..... | 13 |
| Agenda Item 8 –Other Business..... | 13 |
| Alternative Solutions Registry | 13 |
| World Trade Centre events | 15 |
| Implementation Issues..... | 17 |
| Product Failures | 17 |
| Forum of Fire Research Organisations, role of research data (RT) | 18 |
| Sprinkler Systems for Life Safety | 18 |
| Agenda Item 12 – Next Meeting..... | 19 |

Present

| | |
|----------------|-------------------------------------------------------------------------------------------------|
| Bob Bowen | Javier Serra |
| Brian Meacham | Jose Antonio Tenorio |
| Wataru Gojo | Jon Traw |
| Brian Cashin | Beth Tubbs |
| Doug Beller | Jeff Vasey – Director Building Standards British Columbia (15 th -16 th) |
| Paul Everall | Paul Bailey |
| Denis Bergeron | Nico Scholten (17 th October) |
| | Henk V.Zeeland (17 th October) |

Apologies

Olav Berge
Dick Bukowski
Tony Rackcliffe

Opening Remarks

BB opened meeting and welcomed members

BB asked for additional agenda items -

1. Alternative Solution Registry (After Agenda Item 7) (BB)
2. Terminology matters (JT)
3. Other Business:
 - World Trade Centre events (PE)
 - Implementation Issues (BB)
 - Product Failures (BB)
 - Managing Consumer Expectations (BB)
 - Forum of Fire Research Organisations, role of research data (RT)
 - Sprinkler systems for Life Safety (RT/PB)

Agenda Item 1 - Record of IRCC 11th meeting

BB sought comments on minutes of last meeting

JT moved for minutes to be accepted. Seconded by PE

No matters arising from minutes of IRCC11

Agenda item 2 - Country Updates

(In addition to the notes below reference should also be made to the presentations provided by the country representatives)

Canada

Three presentations were provided on Objective Based Codes work currently in progress. The outcomes are to be placed before Commission by end October 2001. NRC has established a document tracking system to allow greater transparency in their code development work.

John Haysom - The consultation document can still be downloaded from their Web site. Objective relating to protection of buildings will under go strong debate. There is nervousness about the code stating protection of buildings including adjacent bldgs. This includes fire, surface water, etc.

There are also strong views for no protection of buildings. Community protection occurs under health, not fire spread specifically.

Denis Bergeron - Update on Objective Based Code Development. (Refer handout). Restructuring of the draft has occurred and Division A is now Chapter 2 & Division B is now Chapter 3. He demonstrated "Protected Page" of Objective-based Codes. Accessible only to Standing Committee members as discussion forum and for annotation. Structure to

be resolved by end October 2001. A task group of enforcers and legal advisers has been established on how to write the code. No intent to change scope from existing code or technical aspects. Convenience and additional benefits (eg corridor widths for moving furniture) are being identified where they exceed the Objectives/Functional Statements and will be excluded from Chapter 3.

Tarek Raafat – Open tracking system (refer handout). Provinces can piggyback onto system if they also wish to track documents for matters beyond core code.

JT asked whether NRC have considered arrangements for organisations outside Canada wishing to adopt process. BB advised that this has not been considered but if there is an interest he could be contacted.

Cost savings and benefits of system have not been identified but this will allow greater ability for provincial stakeholders to participate and be aware of matters under consideration.

JT asked whether video clips could be included and also whether video-conferencing is possible. BB advised that this is possible but many issues still need consideration.

United Kingdom

PE – following the general election in June 2001 his department is now the Department Environment Food and Rural Affairs as a result of the recent foot & mouth outbreaks. They provide sponsorship for construction. There is a new Directorate for fire service, building regulations, and health & safety executive. A more integrated approach will over the next 12 months. There has 15 yrs of Objective based regulations. Major reviews for energy efficiency drainage and heat producing appliances have recently been placed before Parliament and they will be in force April 2002. There is also to be construction guidelines for energy provision, which provides detail for construction.

Rolling reviews are being undertaken. A controversial one is dealing with sound insulation. A question being considered is whether pre-completion (prior to occupancy) testing be mandatory? This is currently a hot issue. There are objections from home builders who have launched a strong political lobby.

On 31 August a consultation document was issued on structural stability in design codes. The comment period closes at the end of November 2001. It can be obtained from their website. WTC events are expected to influence outcome.

Next month a new document will be released on fire safety. This is as a result of European harmonisation. There is a European goal to harmonise product standards and fire tests throughout Europe. This document takes account of European work. There will be a 3 month consultation period.

A review on resistance to moisture has commenced. Leaking timber framed apartment bldgs in British Columbia has provided insight to potential causes.

Disability Access under review for improvement as a consequence of pressure by lobby groups. The disability legislation requires upgrade subject to reasonable costs.

A review has also commenced on bringing electrical safety into the building regulations scope.

Probably White Paper on reform of safety regulations and role of building regulations in 6 months time. Scotland is further along with their reform agenda. A consultation document was issued at the end of July 2001 and the comment period closes at the end October 2001. It is proposed to be placed before Parliament in the summer of 2003.

Spain

Proposal to combined 5 level Nordic structure into 3 levels by combining the Objectives and Functional Statements. An overview of structure of new performance based code was provided. The 1st part of Code is nearly finished and work has commenced on the 2nd part. The code, when completed will include all of Parts 1 and 2. The role of drafting has been outsourced. A website has been established and operating for one month. It has public area and private forum for technical development etc. Private area allows access to individuals who have demonstrated expertise in relevant areas. It allows for comments to be provided. A demonstration of website provided by Jose Antonio Tenorio.

Japan

Non mandatory provision relating to density of formaldehyde measurement done at completion of construction has been released. New notification for 2x4 housing issued under new article of Law. New steel framed housing notification to be issued soon.

The Role and function of MLIT, NILIM and IAI-MRI was provided.

Fire in Kabuki-Cho, Tokyo overview provided.

Report on ISO TC59/SC15 meeting provided. TC59 discussed as part of development. If Japan consider adopting then IRCC members may need to consider more closely. When document is released by DIS it is to be made available to all IRCC members for their consideration.

New Zealand

(Refer notes in e-mail sent Friday 12 October)

New BIA Board recently appointed. Disability access will remain a high priority. Review of Building Act is to be commenced. Discussion document has been released and addresses matters of administration and the issue of level playing field between councils and private certifiers.

Smoke alarms are now required in private houses. Deaths have been occurring more frequently in low socio-economic families with little/no use of electricity.

New Zealand is suffering from occurrences of leaking building syndrome like Canada. Untreated timbers cause most problems.

All buildings, except houses & private flats, are to be accessible. Human Rights Act contains disability rights matters. When buildings are altered there are several upgrading requirements including egress and accessibility. Upgrading to be undertaken to achieve compliances as comprehensively as practicable. Lifts are the main issue causing concerns to building owners.

Review of code clauses occurs every 5 years or less, depending on demand. A new fire safety acceptable solution has been released and is contained in a single document. The code contains requirements to protect fire fighters lives.

Safety from falls is also an active matter, ie balustrades heights, wires, etc.

Water supply has also been a recent matter in the area of treatment of foul water.

Legal proceedings are underway in relation to the fire regulations for dwellings used by people with disabilities. Different disabilities have differing needs. Association for the

provision of care wanted roles of care givers recognised in community houses. This occurred as part of an appeal and the association is considering whether to advise at the approval stage the level of disabilities to be in the community house.

United States of America

ICBO

JT – The three code groups have been working to come together since 1994 and agreed to come together as of January 2003. JT request that ICC be the IRCC member in place of ICBO.

ICC announcements of appointments have occurred and can be found at www.intlcode.org. These announcements include the CEO and 3 VPs. Details in relation to international activities are not available. However, this will be Jon's new role with ICC. This will not change their commitment to IRCC and PBBC. Beth will remain an integral part of the work.

PBBC activities of ICC – 1st edition is to be released on 1 Jan 2002. The top down segment of structure has followed the IRCC model. The outcome is that acceptable solutions are not bound by the existing prescriptive solutions. Adoption by some jurisdictions of draft has been successful. ICC Board have approved bottom up analysis of ICBO code and it is to be undertaken by BT. ICC to embark on 2 projects following this.

- (1) Analysis from top down the initial ICC code to ensure scope is compatible, and
- (2) Top down and bottom up analyses will most likely lead to review of prescriptive provisions, eg handrail/balustrade height.

WTC incident – ICC has established a Task Force to look at the issue. It will not only consider structural and fire matters, but also the response from emergency personnel. The purpose is to not to look at details but to pull all groups (structural eng, fire eng and emergency personnel) together to interact. Task force is to commence its activities within month with international representation to be included.

BT – Existing buildings code can be downloaded from ICBO website. New code for 2003 with Nov 15 cut off. ICC drafts are currently on ICBO website. BT provided a demonstration of the website. ICBO is trying to attract interest from community and industry in development of new code through website by using discussion forums and placing drafts and overview docs for downloading.

NFPA

DB provided a presentation providing overview of the NFPA organisation and structure including standard development. Their building code is downloadable from their website (File size 6Mb). It is in ROP stage. ROC meeting on Code comments is scheduled for late October 2001. There will be a dual track approach. All parts of the code are to achieve objectives. There will be a performance and prescriptive approach. Prescriptive documents are minimum requirements that can not be lowered. NFPA have not yet undertaken bottom up analysis to reconcile differences between prescriptive and performance.

Australia

Three main projects currently in process are:

Access - the ABCB has been tasked by the federal government to review the BCA to enable it to be referenced as a disability standard under the Commonwealth Disability discrimination Act. Equity and dignity is the key to the federal legislation. Looking at the middle of 2003 to release a draft of proposed changes for public consultation.

Aged Care buildings - An amendment to the Commonwealth Aged Care Act in 1997 encouraged such facilities to take into account the changes of occupants over time. The aim is to allow people to stay in one facility instead of being relocated as their needs change. Looking at the January 2001 amendment for incorporating the changes. The biggest issue is struggling with the link between policy and technical.

Energy Efficiency - Initially looking at a change to the housing provisions. The majority of changes are planned for the end of 2002. 1/3 of the office working on energy efficiency. Current issues include; 10 year return period on lighting etc commercial, envelope 30 years. Housing 30 years?? Also known as Lifecycle

Education is active - releasing a multi-media CD aimed at building practitioners to increase awareness of Accessibility issues.

Series of fire risk assessment/cost education information seminars being provided in 2002.

Future building code project is at the stage of releasing a proposed structure for the future building code.

The ABCB recognises that there may be other documents, beyond Standards Australia, that may be suitable for reference in the building code. A guideline is being prepared that outlines a process that any organisation may follow to produce a document for referencing in the building code. Enable industry associations to provide documents as long as they follow the guidelines provided. The purpose is to recognise other appropriate resources instead of having to go through the standards process. This will allow the adoption of referencing other standards written in other countries. Question was posed was that there could possibly be multiple standards referenced.

They are looking at the performance level approach as introduced in the US.

BCA is available online and can be viewed for short periods of time if that is all that is required. Signed a contract with a group who deals with publications on line. Trying to create a profession specific outcome of provisions which is to be based on the Canadian Mini-code generator

Agenda Item 3 – International Conference

The plan for the conference was discussed

BB provided an overview of previous decisions re date, venue, content and structure.

JT provide overview of discussions held by working group. (See attached paper).

It was agreed that the conference is to provide a link between public policy and research/technical development.

Case study (mid-conference) to be formal presentation of design team of performance based design followed by visit to actual site.

Conference Topics are to include:

1. Public Policy Interaction
Key note speaker to have local, state and national perspective.
2. Health
Overlaps with safety. Indoor environment.
3. Safety
How fire safety, structural safety might interact and how when materials are developed to fulfil that role care is needed between the various areas.
4. Societal
eg, accessibility, energy efficiency

Draft announcement to be prepared and circulated for conference in 1st quarter 2003. Care to be taken that there is no conflict with other conferences.

Master Calender to be put on IRCC members page. Members to advise of any conferences that they are aware of to allow organising committee to be informed.

Hotel cost to be in mid-range which is \$US90-100/night. Other costs are relatively inexpensive.

General discussion (notes from whiteboard)-

Who is the target Audience?

- Provincial/state government officials, professional societies (can it be part of their required professional training?), bldg regulatory community, fire regulatory community, plumbing regulatory community, legal community (legal counsels for legislative drafting), senior government officials (policy makers), manufacturers and installers, insurance agencies, academics.

How is the bridge between policy & technical made/reinforced?

How do you ensure the regulatory community, researchers and policy communities all attend?

International harmonisations of standards.

Cross themes for all sessions

- Responsibilities
- Regulatory/marketplace
- Identification and role of research

JT provided his view as outlined below.

Stage setting - Session 1

For example, policy may be set as societal demand, others as risk relating to safety, others due to politics or incidence, market place. Paper to outline the range of factors when setting policy.

- Regulation v marketplace (refer previous Bob Bowen paper San Diego)

- marketing
- Responsibility
- Legal liability
- Public welfare/wellbeing
- Cultural preferences
- Affordability
- Risk
- Quality assurance
- Impact of move to performance codes

Health – Session 2

- Indoor air quality from pollutants of materials
- Bridging medical and technical
- Noise
- Vibrations
- Access to light

Safety – Session 3

- Structural
- Fire

Societal – Session 4

- Energy
- Accessibility
- Security
- Cost
- Sustainability
- Certainty in outcomes
- Consumer expectations

General structure for any of the four sessions -

- 1-2 invited papers
- panels to discuss/debate to stimulate participation

Maybe sessions 2 & 3 could be combined to address the issues of how criteria are being set and how they are/can be measured. What tools are available?

Conference Title –

Performance Based Building Regulatory Systems Policy to Practice

The following is a tentative list of participants to organise each session

Session 1 – Public Policy (**Balch**); (Cashin) (Traw)

Session 2 – Impact on Society (**Everall**); (Berg)(

Session 3 – Measurement of Performance (**Bowen**); (Meacham)(Gojo)
(Technical implications, tools, tests, ability)

Session 4 – Standards (**Tubbs**); (Beller)(Serra)

(Role, type, internationalisation, performance v prescriptive)

All members to provide ideas for speakers for all sessions.

The session leaders are highlighted in bold and are to sketch out how session is to be run. All leaders to discuss how to ensure commonality of structure. Balch and Tubbs to prepare first draft. Impact speaker should be engaged. Leader to make contact and get commitment. Other additional speakers/participants and organising papers to be done by leader. Leader can manage session at conference or ensure it is managed properly, eg on time etc. leader may open session and summarise at end. JT to arrange multi-media requirements and logistics. Each leader is responsible for each session.

What expenses, if any, of speakers are to be covered? JT to prepare budget to determine possibility. Some speakers will attend regardless.

How many delegates will be needed to be successful? 300-500. Facility to be suitable for this amount. BM believes more likely to be 100-200 unless some items being especially appealing. BB hopes to attract materials interest groups, standard organisations. PE believes to achieve these overall numbers a good number of enforcement officials will need to attend.

BM would like further discussion on what the session will look like and to ensure there is enough audience participation eg workshops. JT believed that this is next organising step. Workshops require more people to be involved. Smaller groups will be needed for this to work. Conference could be seen as training and as part of continuing education. This makes it more attractive. JT to draft something for American Institute of Architects (AIA).

Other members to investigate further for disciplines in their countries.

The structure will depend on what outcomes are wanted/needed.

Possible other sources of speakers - International Union of Architects (Paris), Chairman of European Construction Sector.

JT hopes to have date resolved by end of year. Hopefully end November. Master conference calendar to be prepared.

The conference is to be held sometime during March/April 2003. BM & WG prefer early March.

An expo is to also be included as it helps to offset costs and provide sponsors. Not limited to manufacturers, include associations and professional societies.

To further offset costs list of organisation names to be included in literature and for lunches and break etc. Working group to consider most appropriate method(s).

Agenda Item 4 – Fire Safety Engineering Guidelines

JT informed IRCC of proposal to internationalise the updated Australian FEG in conjunction with ICBO and NRC. ICBO appreciated opportunity put forward by Australia.

BC advised that Andy Buchan, University of Canterbury, is involved with updating the NZ guide.

DB advised Aust/US/England are also working together to harmonise the existing three guidelines. Morgan Hurley NFPA Technical Manager is coordinating and it is being undertaken through the Institute Fire Engineers (IFE). They have agreed on 3 parts and not got into detail at this stage. Members include SFPE, NFPA.

The purpose of the internationalised Australian Guide is to provide another resource. BB sees this as filling a gap in Canada by piggy backing on the Australian work.

Henk Van Zeeland noted that Europe has a similar activity

Agenda Item 5 – IRCC Document Developments

Table of chapters to be prepared so members can identify priorities to revise (editorial and/or updating) and which ones they will work on. Also identify other issues/matters to be included eg explanation of European system.

JT matrix has details. JT believes splitting document may destroy its cohesiveness. BB maybe some chapters need editorial revision only while others may need content updating.

Should the next edition be 12 pieces collated together?

BM suggested that the **IRCC hierarchy** should be released in a document. Agreed to include in revised doc.

JT/BM to prepare first draft of hierarchy for circulation to other members. Hierarchy and terminology are to be included in the table of chapters to be circulated.

The revised document is to be available for release at the 2003 conference.

Agenda Item 6 – IRCC 11 - Action Outcomes

M Balch To clarify if changes to charter as discussed at IRCC 11 have been done. If so circulate to members out of session.

IRCC 11, Agenda Item 2 - Parking Lot

The following is to be added to the parking lot.

New Parking Lot Items:

- *Dealing with the lack of connection between research and regulatory reform*
- *How to deal with matters that were previously accepted and now know not to be suitable. Various reasons may apply.*

IRCC 11, Agenda Item 3 - Research Program

The IRCC website now has an area for posting research reports and ideas. When documents are posted on the IRCC website, a broadcast e-mail is to be sent to all members to notify of the posting.

Work programs are to also be posted on the web. ABCB to post NZ projects on site. BC to send information to MB. Documents do not need to be finished to be placed on the website.

The listing of research projects is to include plans for work members wish to undertake. The focus is to be from a regulative perspective.

IRCC 11, Agenda Item 5 - IRCC Document Developments

The matter of the revision to the document is to be listed as an agenda item at IRCC 13 for discussion.

Comments on the decision making process are to be provided to Doug Beller.

Information on the structure of the European document would be of assistance.

All members are to provide comments where appropriate.

IRCC 11, Agenda Item 7 – IRCC 1-10 Action Items

ABCB to draw example of English Regulatory Impact Statement from their website after 31 October 2001. Suggest one on energy Efficiency matters.

Agenda Item 7 – ABCB BCA On-line

A brief demonstration of the first version of Building Code of Australia on line at the ABCB website was demonstrated by Paul Bailey.

Agenda Item 8 –Other Business

Alternative Solutions Registry

The IRCC undertook a workshop discussion on the issues surrounding an Alternative Solutions Registry. Brian Cashin outlined some issues in his e-mail dated 13 September 2001.

NRC to prepare a draft paper for IRCC consideration at next meeting.

(The following is a collection of the notes from the flipcharts)

1. What do we now do as part of collecting acceptable solution?
2. What options do we now have to analyse?

Product evaluation programs are another form of alternative solution. How do you take an entire bldg design?

| What is happening now? | Options/issues |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (New Zealand) BIA prize for alternative solutions each year. Competitions and awards | Detailed bound/site specific Due diligence? Differences between authorities? Reduce risk by level of work done. |
| (United Kingdom) Approved docs. For energy there is 3 alternatives to choose from. Determinations provided where local authority does not agree with proposed alternative. Published without identifying parties involved. EU requires statement in approved docs stating that you can use other standard if equal to British. Eurocodes to be accepted as of right. How does local official know if appropriate? Fire engineering. How does local authority now reduced fire rating is acceptable? More info needed. Alternative enforcement approach, eg private certification | Interpretation and determination have not IP issue. IP – if an issue don't seek determination (UK) If design submitted to local authority then in public domain. IP protection is against copy not distribution. Evaluation activities go beyond code requirements eg durability. ICBO basis is to protect their liability. Trade pressures – we will need to accept across borders and countries eg lab certification. WFTAO bodies – will evolve to other |

| What is happening now? | Options/issues |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <p>(ICBO)</p> <p>Provision of interpretations – advisory stature of org leads to acceptance of advice. Publishing leads to greater uniformity.</p> <p>Local authority acceptance of alternative called “alternative solution”. (ICBO-ES)</p> <p>Publish reports on certification of products, systems and full designs (some are project specific). These may be accepted by local authorities.</p> <p>Based on std/agreed criteria.</p> | |
| <p>(Spain)</p> <p>Existing system still operating.</p> <p>Local authorities still accept.</p> <p>Safety & Health matters register of alternative solutions proposed.</p> <p>Evaluation system WFTAO members.</p> <p>Insurance companies involved in house assessment, as mandatory warranty insurance is required. Recently no acceptance of timber structures.</p> | |
| <p>(Australia)</p> <p>ABCB product approval must accept by certifiers other orgs assessment may be accepted.</p> | |
| <p>Other comments/issues</p> <ul style="list-style-type: none"> • Buildings not possible to be built following prescriptive provisions • Terminology needs to be consistent and meanings agreed and understood. • How do other officials learn about previously approved alternative solutions? (Canada, Australia) | |

Members are to contact country WFTAO representative for report on insurance schemes in their country.

World Trade Centre events

JT presentation

Structural:

Many questions raised in relation to the method of collapse. The method of collapse is known as "Progressive Collapse". Do we consider redundancy adequately? Failure pattern - what if it toppled over? A hardened perimeter will deliver a particular failure pattern and also protect impact of exterior threat.

Fire:

Fuel package not contemplated in relation to both the quantity and severity. How is protection provided for such a scenario? Suppression systems may not cover all beams and columns.

Human behaviour:

Evacuation – is defend in place acceptable? If helicopter rescue then consider size and number needed and also, the ability to respond.

Emergency response:

Suppression systems – How are they brought into the building? Perimeter protection around the building; how much should be cordoned off?

There are many questions for policy makers, owners, financial institutions and community.

Roundtable Discussion

Spain – Madrid's tallest building 35 storey is general office building and the concern has not been identified.

Japan – Regulations do not require building designs to consider for such events. No action taken by Ministry on matter. BRI establish expert team to study event. More info needed on what happened and action by other countries. They are aware that USA established team to investigate and maybe Japan can send team to NY to collect info. Suggest IRCC members continue to exchange info.

Australia – Not much enquiry. Tallest bldg in Australia is currently 55 storeys. Generally most around 40-45 storey. Proposal for 90 storey residential/office tower in Melbourne still proceeding. Will wait to see investigation findings prior to considering possibility of any code revision.

Canada – Not much enquiry. Fire services leading investigation but proceeding cautiously. Prefer to settle any issue on the basis of existing code provisions prior to considering events.

UK – Considerable request, including Ministers. On whether there should be changes to UK building code. Highest building 15 storeys in London. Ronan point collapse in 1968 residential tower caused design code changes to consider disproportionate collapse for vehicle impact. War events and sabotage are not a code consideration. A scatter gun approach to addressing issues of intentional attack would cause concern. Various industry and government committee and task groups should be drawn together to reduce conflicting advice and provide integrated analysis. Considering research to assist investigation. Need for of effective mechanism to obtain reliable info from USA. PE suggested a mechanism should be established to circulate info and allow for discussion eg next IRCC mtg. CIB might set up network and include point on their website. Should IRCC set up network?

New Zealand – Not much enquiry. No official effort to undertake any enquiry/investigation. US emergency response has had recent visit to NZ.

ICBO – Interesting to see other country's responses which appear to be measured based on apparent risk and politics (level of participation in coalition efforts). ICC have established multi-disciplinary task force, not to consider details, but to allow a forum for bringing all relevant stakeholders together to ensure the interrelationship of discipline pieces are not forgotten eg impact of fire on structure etc. If other countries wish to track the activity advise John Traw and he will ensure it happens. The idea is to produce an report that examines the interrelationship with recommendations that may be choices which outlines elements for consideration. Focus is on BOMA, design firms etc. John to lead and supportive of fulfilling UK request if IRCC keep records and accommodate filing of reports/info and task force outcomes. New cabinet position established dealing with Homeland Security. Role is not yet clear in relation to investigation of events.

Opportunity for IRCC to perform as intended. Prefer info to be on publicly accessible page.

NFPA – fire investigator looking at human behaviour and evacuation and emergency response procedures as part of FEMA exercise.

NRC - Venkatesh Kodur advised that he is part of an ASCE activity, also SFPE ACI and NFPA considered investigations. 14 on site 5.30 to 8.30 days. Talk to people involved in design and construction of buildings. Site is damaged more than on TV. 400+ buildings upto 10 storeys damaged. 4 bldgs collapsed 1,2,3,7. 9 bldgs major damaged 20- 50 storeys. 4 bldgs to be completely demolished. 18 bldgs moderate damage, eg broken windows. 384 bldgs can be fixed. 30 M sq ft cannot be used at present. Rescue crews working 14-16 hour days. Slurry wall transferring load to foundation below. If collapse then subway will flood. Extent of damage to wall not know. Location for heavy cranes is restricted due to fear of further collapse. Bodies still being found. Report to be prepared by Nov 16 for presenting to Congress outlining proposal for preparing detailed report and undertaking research. Expected Dec 1 to be ready for Congress.

Most bldgs were steel including 1-7. Asbestos spray protected. Fire protection has come off completely in many bldgs.

What info does IRCC members want/need??? International debate to understand differing info that will come out of the various groups/taskforces?

What can regulations do to address intentional malicious acts on buildings?? What events can occupants be protected from? This is a significant policy matter.

What considerations should occur for existing buildings? The solutions may be different to those for new buildings.

IRCC website to establish public page. Arup report to be placed and links to their and other sites.

Implementation Issues

Key differences

Training.

NZ – Proposed that administration was biggest issue. Ongoing cry for education but utilising performance based solutions was not particularly extensive.

Aust - PB provided overview of Australian experiences. The result is an increase in the level of documentation prepared and provided. There has also been a greater understanding of the building code by designers.

UK – A clear lead in-time is needed. Cultural problems exist, as building officials are reluctant to change approach. Not adopted until required to.

Spain - Probably have 6-12 months notice prior to implementation. The new code will be mostly similar to previous code. Some new areas are considerably different, eg acoustics.

Holland - Finance and insurance organisations want information on any new requirements. Designers must design to new system or the building will not be accepted by these organisations. They may also introduce more severe requirements than the government.

Marginal players follow old requirements in UK, NZ, & AUST. Improved quality in some performance based projects as tighter designs/construction. Holland constructors have name listed in register to be able to operate. Marginal players are seeking tools to ensure minimum levels can be reached.

Holland requires two sign offs prior to construction commencing. Cooperation being promoted between public and private officials via schemes such as staff exchanges.

Product Failures

BB asked whether provinces get involved with providing aid when products fail? Should courts be left to decide or if certain criteria are met should the government intervene?

In the UK when precast concrete failure occurred in residential tower blocks the government stepped in to repair damage on a case-by-case basis.

NZ for flood disasters the government provided financial assistance upto mid 70's. If building is on flood prone land and it is noted on the property certificate then the government cannot be sued if a flood occurs. This also applies to slippage, earthquake etc. It is all determined on a case-by-case assessment

Australia – It is typically a case-by-case assessment.

When there are many contributing factors it is typically the political factors that determine the extent of government intervention.

ICBO – It is typically case-by-case assessment

Forum of Fire Research Organisations, role of research data (RT)

There is data owned by clients of researchers, which is not available, but there is also research data owned by research organisations. What kind of reference data do regulators need from fire community? Probably data on design fires is needed. What are realistic loads and performance of fire when it starts?

The group would request consideration by regulators to identify areas of deficiencies in data.

PE: two areas. 1 - more info about realistic fires. 2 – human behaviour in respect to fire.

JT: great that forum has come forward to create a level of communication. It should be continuous and a plan should be developed. There is little in the area of standards that support the systems, eg measuring of criteria and collectively determining criteria in conjunction with regulators. Prioritising of tasks is essential. Fundamental technical supporting data justifying regulatory change is needed. Not only cost/benefit analysis methodology but also may include risk assessment models.

BC: Supports Paul Overall comments. What is relevant of outdated research and surveys, eg structural matters? Maintaining upto date data is also important.

Nico Scholten: Standard test time does relate to real time but is seen as acceptable. If related to real fires then the building regulations may expand and be significantly be more complex. This is currently be discussed in Europe.

BM: Regulators need to establish research direction and set criteria prior to research being undertaken.

RT: Forum collecting as a catalogue the data held by the various laboratories to see what exists. Bob Bowen/RT will maintain communication link with IRCC.

PE: IRCC should have greater level of dialogue to ensure there is no gaps and no duplication.

Sprinkler Systems for Life Safety

RT provided overview of paper.

Nigel Smithies supports proposal and believes benefits by international exposure is important.

BM: will systems for new bldgs address the real issues of poorer communities and older buildings? Further discussion on technical matters needed, eg reliability, effectiveness and extent, and policy issues.

ABCB to further scope out issues and steps needed for discussion at IRCC 13 as a specific agenda item. Maybe should be called a 'technical specification'.

JT: research needed to identify potential outcomes both life safety and economic, including reduction in infrastructure. Need to involve those subjected to the standard.

Agenda Item 12 – Next Meeting

Next meeting in *LA, USA Date to be determined 2002.*