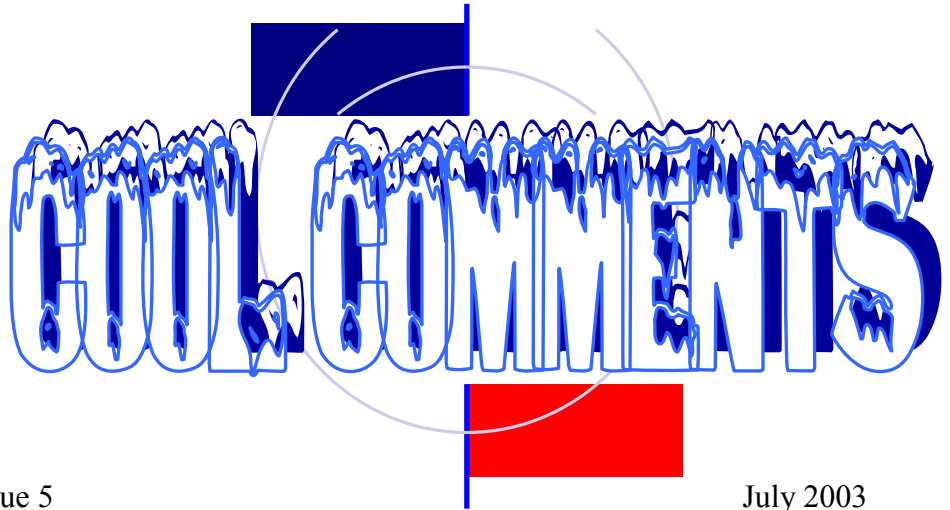


**INTERNATIONAL
ASSOCIATION
FOR COLD
STORAGE
CONSTRUCTION
(European Division)**



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Issue 5

July 2003

Editorial

We had an exceptionally busy time over the past three months, and I believe we have produced excellent results on behalf of you, our members.

Our new Secretariat has bedded down very successfully and we are blending our various skills to optimise our service to you. That may sound like media speak, but I can assure you we are bringing a whole range of talents to achieve the required output.

We do ask, however, that you realise that IACSC (European Division) has a new address:

20 Park Street, Princes Risborough, Bucks HP27 9AH

Tel: +44 (0)1844 275500

Fax: +44 (0)1844 274002

E-mail: iacsc@intfire.com

Please ensure that all your contacts, including your book-keeping departments use the new address.

Our next task will be to upgrade our web-site to reflect more accurately, and more extensively, the details of our new members, and to record a better overview of all our Guides. We have circulated architects with details of our IACSC Model Building Specification, and they will undoubtedly use the information on the website about you, our members.

Cont.....

As an update, our Technical Committee is continuing to develop our recommendations on the information we consider should be contained in Panel Manufacturers' brochures, and we look forward to publishing our views in the Autumn 2003 edition of "Cool Comment".

I would also remind you that we asked for ideas on a possible Seminar/Workshop for our members to be held sometime this Autumn, but so far none of you have come forward with a burning demand for information/discussion on whatever???? Perhaps our information is up to the mark, and we are doing all the right things - but we would like feed-back from you. That way everybody will be satisfied.

Finally, I am very pleased to welcome new members who have joined our European Division in the last several months;

Anderson Construction & Insulation Ltd
Kirk Square
Peterhead
Aberdeenshire
AB42 1RQ

Tel: 01779 474 860
Fax: 01779 477190
E-mail: Dave@Freshcatch.Karoo.co.uk

Contact: David Brailey Project Manager

H A Davie Ltd
Unit 13
Market Place Industrial Estate
Houghton-Le-Spring
Tyne & Wear
DH5 8AN

Tel: 0191 5842652
Fax: 0191 5842752
E-mail: mall@hadavie.co.uk

Contact: D C Martin-Jones - Managing Director, K Scott - General Manager

HBCL Cold Stores Ltd
Unit 1
DPM Industrial Estate
Challenge Way
Bradford
BD4 8NF

Tel: 01274 657130
Fax: 01274 657131
E-mail: CN.Lovett@hbclcoldstoresltd.co.uk

Contact: Craig Lovett - Managing Director
Ms Gwen Rollinson - Chief Administrator

EDM Spanwall Ltd
Unit 1
Carryduff Business Park
Comber Road
Carryduff
N. Ireland
BT8 8AN

Tel: 02890 815303
Fax: 02890 815449
E-mail: info@edmspanwall.com

Contact: Tony Reid- Managing Director
Ivor Lees - Consultant

We would be very grateful if our members could contact and welcome our four new members, since we are sure that they will bring new ideas and new concepts which could benefit all our membership.



The New IACSC Protocols

While the *'Design, Construction, Specification and Fire Management of Insulated Envelopes for Temperature Controlled Environments'* guide has been very well received, there have been requests for simplified information. This has been acted upon and three 'protocols' or 'Guidance Notes' were launched at this year's Annual Conference. Delegates received paper copies of the first three. The intention is to produce these electronically so they can be readily updated and freely downloaded from the IACSC website. Paper copies will be available from the IACSC Secretariat at £5 plus p&p.

The protocols are:

- Guidance Note No 1 *'IACSC Labelling of Insulating Panels'*
- Guidance Note No 2 *'IACSC Protocol of Designing/Constructing New Insulated Envelope Buildings in respect of Fire Safety'*
- Guidance Note No 3 *'IACSC Summary of the Fire Testing Methods and Evidence Appropriate to Buildings Incorporating Sandwich Panels'*

The first protocol therefore deals with labelling and indicates how the information on the basic label can be extended to include details of testing that has been done. The IACSC/IFC labelling has been very favourably received and is now being recommended by many fire brigades, brokers and insurers across the country.

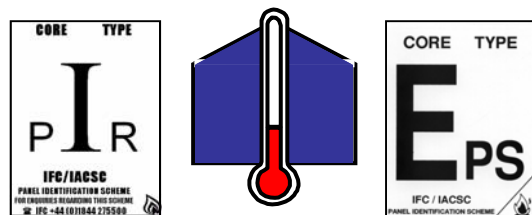
The guidance note also deals with application of labels and gives a guide to costings with indicative charges of £450 per large building, £200 for an enhanced plan of particular value to fire fighters and a cost of for example £4 for the actual labels on each side of the door. The dual advantages of assistance to fire fighters and for those doing the risk assessments in the building are highlighted.

For those involved with the design and construction of new insulated envelope buildings the **second Guidance Note** summarises the legislative requirements in the UK as well as those of the insurance industry. It goes on to stress the value of 'fire stable structures' which can now be accredited. Liaison with the fire service closest to the building is strongly recommended in order to deal with anything unusual in a particular structure; labelling as an aid is recommended as well as offering the building for fire brigade training. If there is a fire and there is disproportionate damage as a result it is highly likely that the building owner will go out of business. Even in companies with more than one site, a fire may lead to permanent closure of the facility with the attendant impact on employment.

As the performance of the materials used is crucial to the design of the building **Guidance Note No 3** deals with all the relevant tests both in the UK and Europe. Without appropriate information on the behaviour of materials specified it is possible to put up a building that performs adequately under normal working conditions but will fail disastrously when exposed to fire.

IACSC/IFC LABELLING SCHEME

The scheme has been carried out and labelling of premises such as Safeway, Noon Foods and Excel Logistics depots.



If you have clients that may benefit from this scheme please contact, Joanna (Jo) Jackson, Penny Morgan, Paul McGahey, Graham Wiles or Peter Jackman on:

Phone: +44 (0) 1844 275500

Fax: +44 (0) 1844 274002

Email: ifc@intfire.com

Practicalities of the Panel Labelling Scheme – IFC Experience

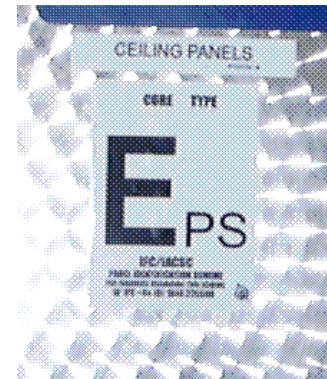
Although the original guidance on panel labelling in *'Design, Construction, Specification and Fire Management of Insulated Envelopes for Temperature Controlled Environments'* was concentrated on the needs of the fire fighter, it is obviously a system that will assist in fire risk assessments for compliance with Workplace Regulations. The presence of clear labels allows a quick check of what type of panels are being used.

The guidance recommended placing the labels either side of a doorway to indicate the cores of the panels in the space into which operators are moving, with information about the ceiling panels on a larger label above the door. However, if you look at firefighters wearing breathing apparatus you will see that they are tilted forward. Add to that the restricted view through their face masks and it becomes plain that they will never see the label over the top of a door unless they happen to be lying down.

IFC has resolved this problem by using A5 sized labels throughout, placing them about 1.5m above the floor and putting the ceiling label in the centre with an additional 'ceiling label' label above it. See below.



Typical labelling, the panels the other side of the door have expanded polystyrene cores



The next practicality to address was where to put the labels if the door is a sliding one. It is best to put the ceiling label near the handle, and the wall label at the furthest edge of the door when open, see below. In the freezers in a working food process building the labels will fall off the inside of the doors as ice builds up, therefore we do not put labels there.



Sliding door labels, note the position of the right hand label at the limit of the 'slide'

Openings without doors are dealt with by labelling one side with a wall label and the other with a ceiling label.

Where there is an uncertainty about the core material, IFC will drill a hole, check the material and then seal it with a PVC 'plug' which does not compromise the food safe surface.

We have found that staff are fascinated by the process and either ask lots of questions or studiously ignore us while eyeing us as we move around the building. We are most grateful for the good-natured way staff have treated us as we peel and stick in their buildings. We look forward to expanding our panel-labelling operations.

IACSC (European Division) Annual Conference 18/19 June 2003

For the benefit of the very few of our members who were unable to attend we are very pleased to report that we had 93 delegates on the day of our Conference, of which 37 attended the very enjoyable dinner the night before at the Haycock Hotel. We like to think that the dinner set them up extremely well for the Conference!! It is also fair to add that eleven members took part in the "Ad-hoc Stableford" golf match at Thorpe Wood which in its own way set them up for the dinner. First prize, donated very kindly by Keith Hemmings of HEMSEC, was won by Les Trebinski of Carter Retail with 38 Stableford points - if he plays next year, his handicap will be cut by 2 strokes!

The theme of the Conference was "Legislation and Industry Initiatives" - both very much to the point, since we were well aware of the extent of new legislation which is in the pipeline, whilst from our side, our Technical Committee had been helping to develop our IACSC "***Model Building Specification for Design, Installation and Commissioning of Insulated Envelope and Insulated Floors for Temperature-controlled and Ambient Environment***" during the course of the past year and which was launched at the conference.

We also launched the first three of our European Division Guidance Notes Protocols in support of the Model Building Specification - on "Labelling of Insulated Panels", Design/Constructing New Insulated Envelope Buildings, in respect of Fire Safety Constructions", and "Fire Testing Methods appropriate to Insulated

Structures". The Model Building Specification and the Protocols are all based on the information contained in our various published Guides, and are aimed at ensuring better built structures answering to the requirements of EC/UK legislation, and also the need to reduce the fire risk which is inherent in many of these structures. Our presenters were from Government, the Fire Services, the Insurance Sector and our own industry, and many illuminating new points came out of the presentations.

1. In 2004 the Government (Building Regulations Division) will be carrying out a revision of Approved Document B (ADB). (*Note: The current version of our IACSC Guide is referenced in Appendix F of ADB as a source of good building practice.*) We are assured that the Appendix F reference will remain, but, interesting to note, the revision could well include environmental pollution, and particularly smoke pollution. This could have an impact on various types of insulating sandwich panels.
2. New fire legislation will be introduced in Spring 2004 via the new Regulatory Reform Act. For England & Wales it will involve a single Fire Safety regime for all work places, based on a Risk Assessment by the responsible owner/manager. There will no longer be the current obligatory Fire Certificate, and whilst the Fire Services will only act in an advisory capacity, Court proceedings can be instituted against owners/managers who do not comply. We shall provide more details on this in due course.
3. Panel labelling is now taking off, and our IACSC/IFC industry wide scheme is being installed in several food production and storage plants. The Fire Service strongly endorses our scheme, and the insurers have recognised its validity.

4. The Fire Services are prepared to fight fires in insulated structures, provided they are deemed by the incident commander to be fire stable, and this will depend on his knowledge of the building and its composition. However, they also have equipment problems!
 - Their 2 way radios and breathing apparatus can freeze up in the low temperatures found in cold stores. Cutting gear will not operate in these conditions.
 - Their ladders are too short to reach the top levels of hi-bay structures.
5. The insurers now consider that poor/non-existent fire risk safety procedures by owners/managers of food industry temperature-controlled insulated structures pose a greater problem in terms of fire risk than combustible core panels. This is reflected in their most recent Technical Report.

For those who were not at the Conference, the **Model Building Specification** and the **Protocols** are available via the Secretariat. For your information the next Protocol on "Refurbishing/De-commissioning of Temperature-controlled Structures" is in draft, and we shall be developing new themes in the course of the next year. If any member has a theme which he would like to see developed, please contact the Secretariat as soon as possible.

Our Conference received a great many complimentary remarks from many attendees - in particular the large number of designers/architects who were present, and who believe that IACSC is providing them with much needed technical information. From our perspective we are very pleased to be fulfilling our role as an Association, and to represent our members interests to the many sectors involved in our industry.

NVQ in Cold Storage Construction - Progress by Management Council

Following the decision of the Executive Committee earlier this year to introduce a common standard for installation and construction of cold storage enclosures significant progress has been made to date.

IACSC has introduced the '*Guide to Design, Construction, Specification and Fire Management of Insulated Envelopes for Temperature Controlled Environments*' and the recent '*Model Building Specification*' so the natural progression and requirement of the two documents is to formulate an NVQ standard for installation and construction. The preparation of this standard is now well under way with the formation of the Standards Committee from all corners of the industry.

The NVQ standard will be initially developed for craft level installers at Level 2 progressing with a further level for supervisors at Level 3. To enable the introduction, the Standards Committee is required to formulate a draft standard for approval of the Qualification and Curriculum Authority. Following this, assessment procedures and accreditation authorities must be set to conform to National Qualification procedure.

The standard is being developed to construction industry standards in close liaison with CITB who will also be the Accreditation Body upon introduction of the qualification. The process of registering operatives and administration of the new system will be undertaken from the IACSC office at Princes Risborough.

The draft NVQ Level 2 standard is due for publication at the end of September 2003 and will be submitted to the Qualification and Curriculum Authority shortly afterwards.

The approved standard NVQ Level 2 will be available early 2004 for use by employers and operatives. We will keep you informed as to our progress and our NVQs will become the norm requirement for our sector of the industry.

Making the Uninsurable - Insurable

The objective of the 'IFC Gold Standard' is to lower the potential for fire to as near zero as possible, to reduce that impact of fire on the ability of the company to continue trading, and to reduce the incidents of disproportionate damage in the event of a fire. Whilst being designed for all building types, the 'IFC Gold Standard' is particularly suitable for use in structures where sandwich panels predominate. **In these buildings the implementation of many of the recommendations given in the IACSC Guide will form a major part of the strategy.**

Preventing the delamination of panels, regardless of their core type, forms a major objective in the control of disproportionate damage. Management of personnel and details of the construction are considered in-depth in the 'IFC Gold Standard' in order to reduce the vulnerability of such businesses to arson.

International Fire Consultants Ltd understand that the principles, objectives and approach incorporated in the 'IFC Gold Standard' are welcomed by most leading insurers.



Should you feel this is a useful service that your clients would appreciate details of, then please phone +44 (0)1844 275500 and request copies of our brochure from either Joanna (Jo) Jackson or Paul McGahey. Any leads, contacts or suggestions in this regard would be most appreciated.

ABI Conference 27 June 2003

We were very pleased to be invited to attend the very select Conference being sponsored by the Association of British Insurers (ABI) to publicise their new technical paper on “**Fire Performance of Sandwich Panel Systems**”, although we had been privileged to have a pre-view of their paper, presented at our own Conference the week before. It's always a good thing to have two bites of the cherry!!!

The ABI paper is extremely important, in that it sets out the insurers revised attitudes to the use of the various types of insulating sandwich panels in the temperature-controlled food industry. The paper has had a lengthy gestation period, since it's first draft attracted extremely adverse criticism, and from the IACSC perspective the current paper is a marked advance on the mantra the insurers had adopted “all panels are acceptable, provided they are non-combustible core”. The changes in doctrine were endorsed by the senior representatives (risk assessors and under-writers) of the four major insurers who were present. AXA, Alliance/Cornhill, Norwich Union and Zurich - and we were given to understand that Royal Sun Alliance also supports the paper. However, IACSC wishes to see how matters progress from now on, before we entirely believe that the insurers have totally taken on board the new system of assessing the types of panels acceptable for use in the various insulated structures throughout the temperature-controlled food industry.

A copy of the ABI paper (ref: 03/CS/TC/13) is available to members from the Secretariat via e-mail. **We would welcome any comments from our members on the paper, since they would help us in our future discussions with the insurers.**

Use of Mineral Rock Fibre (MRF) Panels in Ceilings of Temperature- Controlled Insulated Structures

At a recent meeting of our Executive Committee the important subject of the use of Mineral Rock Fibre (MRF) panels in the ceilings of temperature-controlled insulated structures was discussed. The Committee requested that their views should be disseminated to members via "Cool Comments". The Executive Committee considers:

1. In broad terms, it is generally not advisable to use Mineral Rock Fibre Panels (MRF) in the ceilings of temperature-controlled insulated structures, unless the panels are correctly protected and adequately supported. The view of the Association is that, it is specifically **NOT ADVISABLE** to use MRF panels in the ceilings of cold stores, since they can be penetrated by water which may result in a ceiling collapse over time. This would particularly be the case where the vapour seals of the structure had become less effective.
2. Where MRF panels are installed in the ceiling of an insulated structure, exceptional care should be taken during installation to ensure that operatives do **NOT** walk on such panels unless the panels are correctly protected and adequately supported and that the operative is briefed, trained and subject to a Health and Safety plan for such activities. Otherwise the panels core may be damaged, which would result in the panels becoming dangerous/unstable after a relatively short time.
3. Panel Manufacturers should affix a "**Panel Core and Attention**" label (or

similar notice) to their MRF panels, stating "DO NOT WALK ON THIS UNPROTECTED PANEL", and a Disclaimer Sheet should be issued by the manufacturer to the contractor with a copy for the architect. In addition the Disclaimer Sheet should carry the recommendation that MRF Panels installed in ceilings should **NOT** be used as a permanent work platform post-installation.

NOTE: The same label/disclaimer sheet should be issued by the Panel Manufacturer for Modified Phenolic or Glass Wool panels, which are also very friable, and where the skin can break easily if trodden upon.

The Executive Committee has requested that this advice should be issued, since there are currently a number of insulated structures where the MRF ceiling panels are being replaced as a result of damage/moisture absorption.

Editorial Note:

In compiling the above article, the views of PAROC PANEL SYSTEM UK LTD in respect of 'Non Walk On' labels, were sought. Their comments, views and advice are reproduced with their permission and are shown below:

Fax from Paroc 18th July 2003

're: Cool Comments

Dear Sir,

Further to your fax to our Managing Director Jan Adersson dated on 17th July '03 re. comments to your forthcoming publication, I'm now sending our Development Manager's views on them on behalf of Mr. Andersson as follows:

We wouldn't use term "Mineral Rock Fibre Panels" here as one could easily make an assumption that glass wool panels could still be used in cold stores without any restriction, which indeed is not the case.

We would use term “Mineral Wool Sandwich Panels”, which includes both rock and glass wool panels. Terms “Rock Wool Panels” and “Glass Wool Panels” should be used when one wants to make a difference between these two panel types. We would also like to make a difference between chill stores (temperature above 0°C) and cold stores (temperature below 0°C).

In our opinion there are a lot of Mineral Wool Sandwich Panels on the market with different properties. Panels that are designed for these ceiling applications can well be used. Such panels should have a core of rock wool with high compression strength properties not to fail when walking on it, with high tensile strength and good bonding properties not to easily delaminate and with a high durability to withstand the humidity and temperature environment in these applications. The client should always ask the manufacturer of these properties to be sure that the panels are fit for the applications to be used in. We agree that there is a big risk with ceiling panels in cold stores. This risk is not a risk only for mineral wool sandwich panels. However, Paroc has developed wall panels which can be used on cold store applications as well. Paroc has also developed both wall and ceiling panels that can be used on chilled stores. The main issue is how to secure the air tightness of the joints. This is a question about joint design and good installation workmanship. A panel joint is never tight without a good sealing solution in the joints and round all possible penetrations and connections to other building parts. Always ask the manufacturer of proposed solutions. But even with good solutions and workmanship there is a risk for moisture penetrations because of the very big air under pressure in a cold store. The most essential thing is never use any kinds of sandwich panels in cold store ceilings (also walls) without air pressure equalizers in the upper parts of the cold store. These will reduce the under pressures and minimize the risks.

Well designed Rock Wool Panels (according to item 2 above) can be walked on during installation and normal maintenance. Nevertheless areas that are frequently walked on should be protected. Such areas are front areas of any doors leading to the ceiling and possible walkways leading to frequently used maintenance areas. These aspects should be taken into account when designing the building.

We are not in favour of any labels proposed. The manufacturer should provide the client with technically sound installation and maintenance instructions so the designers, installers and maintenance persons know how to act in different situations.

With best regards

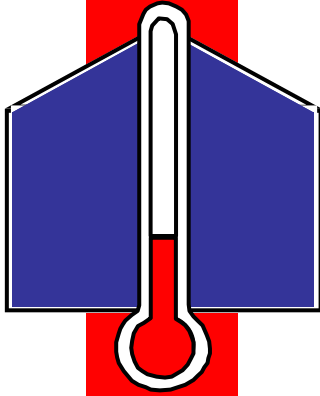
Paroc Panel System Uk Ltd

Pasi Turpeenniemi

Technical Manager'

Editorial Note:

We are aware of the significance and importance of our IACSC recommendations on MRF panels and we would welcome any written views by members, which we will be happy to report in the next issue of “Cool Comments”.



IACSC

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Up and Coming Events

August

20-22

2nd International Conference in pedestrian and evacuation dynamics. (17 hours CPD)

University of Greenwich London

Phone: +44 (0) 20 8331 8730

E-mail: e.r.galea@gre.ac.uk

September

9-11 September

Fire 2003 Conference and Exhibition, Glasgow

E-mail LesleyStevenson@uk.dmgworldmedia.com

10 September

Structural Fire Engineering Conference, Manchester

Contact: Carmela Venosa-Ridyard

Phone: +44 (0) 161 200 4600

Email: carmela.venosa@umist.ac.uk

16-19 September

John DeHann's Fire and Explosion Investigation Course.

Wethersfield, Essex

Contact: Bob or Sue Smith

Phone/fax: +44 (0) 1753 644 300

E-mail: gacoursebooking@aol.com

16-19

Building performance 2003-

London

Phone: +44 (0) 1903 819 595

E-mail: lisa@good-golly.com

October

30 October

Insurance Demands of Insulated Panel Structures within the Food Industry, Institution of Food Science and Technology (IFST) and Institute of Mechanical Engineers (IMEchE), Bury St Edmunds

Contact DC Ives

Phone +44 (0)1480 462350

Fax: +44 (0)1480 466770

Email: don@ives-consultants.co.uk

November

6—8 November

IACSC 2003 Technical Seminar, Millennium Regal Knickerbocker in Chicago

Contact: Susan Shores

E-mail: email@iacsc.org

13 & 14 November

Panama International, The 37th General Assembly of

Grand Hotel Toplice, d.o.o.

Cesta Svobode 12

SI-4260 BLED, Slovenija

E-mail: coolpanel@skynet.be