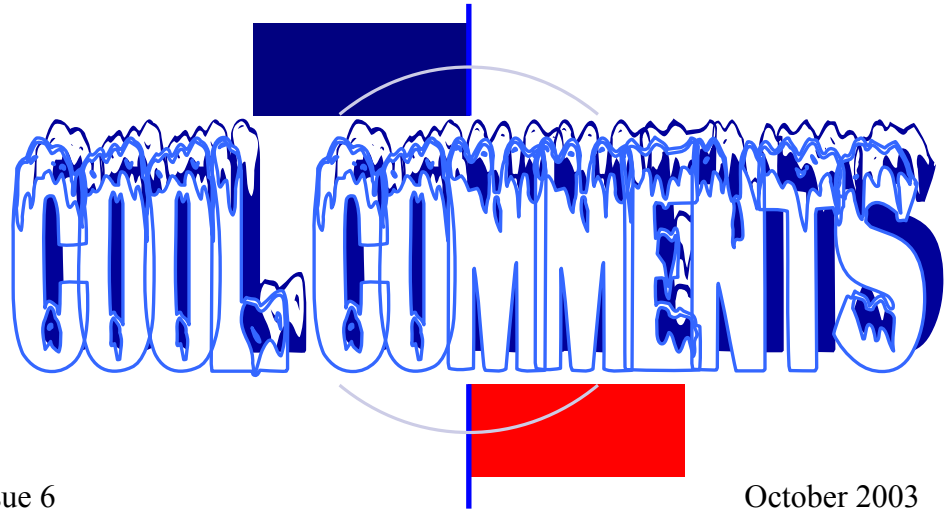


**INTERNATIONAL
ASSOCIATION
FOR COLD
STORAGE
CONSTRUCTION
(European Division)**

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Issue 6

October 2003

Editorial

It seems a very short time since our last issue, and although it could be deemed to be the “slack season”, nevertheless a great deal of movement and proposed change has been taking place in the past three months.

Our Technical Committee has had a couple of meetings, the first of which covered a special review of proposals by Mr Terry Day for an improved Fire Risk Assessment process, designed to help designers, owners/managers, contractors and insurers to reach more technically-sound and logically-driven insurance agreements. We find Mr Day’s proposals to be reasonable and helpful, and he has taken on board a number of our recommendations. Hopefully, when published, his ideas will help to smooth the current difficulties between the insurers and our IACSC clients in the temperature-controlled food industry.

The second Technical Committee meeting threw up two specific and relatively important points - the use of specific types of conduit material in conjunction with EPS; and the problems of building temperature-controlled insulated structures above 3.5 metres high, where the panels have been processed and passed through an LPS 1181 fire test. The first item is dealt with in detail in this edition and the second is being considered by a special sub-committee, set up at the behest of

our Executive Committee. A third important issue namely the recycling/reuse of panels - arose out of discussions, which we have had with the Steel Construction Institute. This is also included in this issue, along with an update on the important EC Ozone Regulation (2037 of 2000), which comes fully into force on **1st January 2004**. This is important for all our members, since HCFCs will be formally categorised as hazardous substances, and their use as blowing agents in panels (PUR/PIR) will be banned from that date. The difficulties of recycling and/or waste disposal of such panels is also covered.

Welcome to New Members



We are very pleased to welcome the following new members to IACSC (European Division).

Advanced Cold Store Technology

Unit 25C
Anniesland Business Park
Netherton Road
Glasgow T13 1EU
Tel No: 0141 959 9200
Fax No: 0141 959 9400
E-mail: ken@advancedcoldstores.co.uk
Contact: Ken Godzman

Format/Contents of Cool Comments

We don't pretend to be expert media people. If you have any comments/recommendations for improvements in layout or contents please give us a ring. We are very friendly, approachable people - and don't forget to send us your letters and queries on any of the subjects raised in Cool Comments.

W J BITTLES OBE

Executive Secretary

Lintec (Laminations) Ltd

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Grimsby, N E Lincolnshire DN31 3JS
Tel No: 01472 362841
Fax No: 01472 240669
E-mail: Mike.Kaveney@Lintec-Laminations.co.uk
Contact: Mike Kaveney

Paroc Panel Systems UK Ltd

Stoney Lane
Rainhill
Prescot
Merseyside L35 9LL
Tel No: 0151 426 6555
Fax No: 0151 426 6622
E-mail: paroc_uk@btinternet.com
Contact: Dennis Beardsmore

British Frozen Food Federation Seminar

We were very pleased to be invited by the British Frozen Food Federation (BFFF) to provide their members with the equivalent information as IACSC members received at our recent seminar in June 2003. The BFFF invitation was quite an accolade, since it gave us the opportunity to put across our message on the need for improved construction standards (as contained in our *“Guides/Model Building Specification for Design, Insulation and Commissioning of Insulated Envelopes and Insulated Floors for Temperature-controlled and Ambient Environments”*) to an important organisation in the temperature-controlled food industry.

The seminar was attended by a large food industry audience at the BFFF conference centre in Grantham on 7 October 2003 and the speakers were the same as those in our June 2003 Conference, except that Mr Paul Murphy, a Senior Underwriter for Norwich Union, put across his company’s views on their attitudes to temperature-controlled insulated structures. Norwich Union totally supports the principles contained in the ABI Technical Briefing Report of May 2003, and strongly advocates the use of non-combustible panels and panels which have passed the LPCB (1181) Fire Test. Mr Murphy also, however, recognised that combustible core panels would be a reasonable choice in low-risk

temperature-controlled insulated structures. He stated that “stand-alone” cold stores would be classified as low fire-risk. **Very importantly, he strongly endorsed the implementation of the IACSCS/IFC panel Labelling Scheme throughout the food industry - a major breakthrough and the first time that a major insurer has publicly supported our scheme.**

In his presentation, Mr Jackman (International Fire Consultants Ltd) advised against the use of Mineral Rock Fibre in cold stores, where vapour seal problems could create serious difficulties through moisture absorption. He believed that the safe use of properly designed polymeric panels would produce a better, long-term and more economically viable result. He also noted the possible problems of breaking the overall fire-seal in a temperature-controlled structure by the introduction of conveyor belt/shutter inlets. In his view this was insufficiently assessed on a fire-risk basis by either the food company managers, the Fire and Rescue Service or the insurers.

Mr Terry Day (FRS/BRE) once again developed his candid overview of the insurance industry, outlining the lack of coherent policies towards the type of insulating panels in temperature-controlled insulated structures by the insurers as a whole, and even within different

divisions of an individual insurer. *Perhaps this does not augur well for the future success of the ABI initiative as contained in their Technical Briefing Report May 2003.* Mr Day noted the reluctance of food operatives to install compartmentation and/or sprinklers and stated that a “poor core with good design/fixings could make a good panel” - a major point which we in IACSC have always emphasised. Mr Day also mentioned that the use of non-combustible core panels could result in reduced energy efficiency, which could well be deemed to be politically unacceptable in the near future given the EC and the UK Governments’ insistence on ensuring overall energy conserving measures!!

Mr Geoffrey Bowles (HM Fire Services Inspectorate) reviewed current and future fire legislation, and noted the responsibility on contractors to ensure the buildings are responsibly constructed in terms of the new fire legislation. As we start to develop the review of our IACSC “Guide on Design Construction Specifications and Fire Management” these are the type of points, which we will need to incorporate.

All in all an extremely successful Seminar at the end of which, Mr Carr, Director

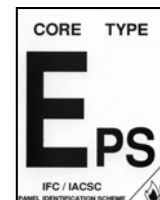
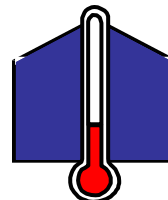
General BFFF, pledged his organisation’s support and endorsement of IACSC’s aims to improve construction standards and reduce fire risks.

Update on NVQs

The development of NVQs for our temperature-controlled construction industry is progressing well. The consultant appointed by CITB will have his first draft of National Occupational Standards and Framework Structures ready by the end of this month, and the IACSC NVQ Managing Council will hold a special meeting in November 2003 to discuss and comment upon any points they may have. This will allow a revised draft to be produced and put out for wider consultation by the New Year. NVQs are important for all our members, since your customers are increasingly seeking NVQ trained and accredited companies with whom they will wish to do business. We will keep you informed.

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, Penny Morgan, Paul McGahey, Joanna Jackson, Graham Wiles or Peter Jackman on:

Phone: +44 (0) 1844 275500

Fax: +44 (0) 1844 274002

Email: ifc@intfire.com

Decommissioning of Temperature Controlled Insulated Structures for either Refurbishment or Closure

This is the title of the latest Guidance Note, number 4, to be produced. Originally planned to cover the issues surrounding refurbishment it soon became clear that it would be more helpful to address putting the building out of commission before refurbishment (or closure).

The expected life span of an insulating panel is approximately 15 – 25 years in a temperature controlled building. Although most core materials still perform well beyond these periods of time, there may be some areas where the insulation has been compromised, for example at panel junctions and joints or from damaged areas resulting from impact by pallets and fork lift trucks. Water penetration can also have a detrimental effect on the coatings and the facing steel of the panels. This can cause hygiene and loss of strength problems. Some panels may have been incorrectly specified resulting in inadequate insulation standards and high running costs.

Following the regular Risk Assessment carried out by the employer under the Workplace Regulations, panels may need to be replaced due to a change in the perception of the hazard that the panels present, let alone any damage they may have sustained. In any of the above cases there will be a degree of de-commissioning in order to alter or improve the building i.e. refurbishment. In extreme cases where a building is no longer to be used it is good practice to consider how it may be used in the future by a different owner if it is not to be demolished but is to be left vacant.

This Guidance Note is intended to highlight and identify the areas which should be considered when altering a temperature controlled insulated structure in any way. It includes information on who to inform prior to starting works; the design brief; **in decommissioning it stresses the care needed for disposal of the panels and deprecates the second-hand use of any panels.** Guidance Note 4 details the advantages of careful planning of works in the life cycle of the building and the importance of accurate record keeping.

After a refurbishment, labelling and the preparation of an enhanced fire plan of the building is recommended.

PVC and EPS

There is a perceived and scientifically-proven risk of an exothermic reaction between PVC and expanded polystyrene, EPS. Indeed there have been a few fires caused by running PVC-insulated cable through EPS-cored panels. However, the exothermic reaction is only possible when the polymer is combined with a liquid plasticiser so that the PVC-P becomes flexible and can be used in cable insulation, flexible films etc.

In its usual form PVC is a rigid compound used in pipes, window frames and conduits. IACSC recommends the placing of cables in (non plasticised) PVC conduit to avoid the problem. The use of other panel cores with PVC conduits creates no such difficulties.

WARNING - Low Melting Point Fixings

When undertaking audits and site surveys as part of The Fire Precautions (Workplace) Regulations (Amended 1999), Staff at International Fire Consultants Ltd (IFC) are continually finding cases where mineral rock fibre cored panelled constructions are held in place with aluminium, or other low melting point rivets.

The prevalence of this is so great that one is tempted to ask whether the installers are:

- unaware of the need not to use low melting point fixings, or
- unable to differentiate between low or high melting point products.

In respect of the former, an installer needs to recognise that in any fire environment where mineral rock fibre panels are used, temperatures in excess of 900°C are almost certain to be encountered. Fixings that melt below that can only make a limited contribution.

When selecting rivets it must be recognised that the shaft will always be steel, it is the rivet head that may be made of other materials and which would fail prematurely. A magnet will always be fooled by the shaft and will not differentiate between them. Traceability of the product to its source is the only way of ensuring that the technical specification is correct.

Don't guess, check, it is too important. Always use steel rivets.

Legislative Changes are Coming

Members need to be aware that several initiatives with respect to legislation will come to fruition in 2004/5.

Approved Document B (ADB) for England and Wales is being revised during 2004 - it will be interesting to see if there is any change in Appendix F *Fire behaviour of insulating core panels used for internal structures*. At the same time IACSC is revising the Design Guide referred to in ADB. We expect that the **Scottish Technical Standard D Structural Fire Precautions** paragraph 7.4 will reflect any changes which may be included in ADB. This is because the Building (Scotland) Act 2003 Consultation on Building Regulations and Guidance Documents finished on 31st October 2003 and will result in *a new Scottish Act to be promulgated by the autumn of 2004*.

Approved Document L is being revised at present following the publication of the Energy White Paper in February 2003 which presented the aims of the next major review of the Building Regulations to be effected in 2005. This has implications for members in the matter of emissions from their products in use and when subjected to penetration for services and during de-commissioning or refurbishment.

Members should be aware that there was a "Building Summit" on 21 October 2003 held jointly by the ODPM/DEFRA/DTI. The outcome of this summit could have far-reaching implications. We are part of the Federation of Environmental Trade Associations (FETA) team representing industry views on energy efficiency in temperature-controlled structures. We shall ensure that our views/concerns are represented.

The Regulatory Reform Act 2001 made way for the reform of fire safety legislation, working title *Fire Safety Bill* which is due late 2004 or early 2005. This will be supported by a series of Guidance Documents, the first of which is on commercial properties and the first draft made several references to the IACSC Design Guide. We await developments and will keep you informed on the progress of all these legislative changes.

If any member has any concerns or wishes to put forward views on any future legislation, please let us know.

NTC 21 Kits for Prefabricated Cold Storage Rooms

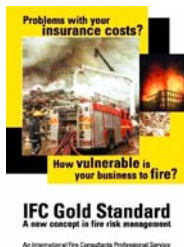
The Secretariat is holding papers on this topic from October 2001. Should any member wish to have access to them, please contact us.

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 Paul McGahey or Joanna Jackson. Any leads, contacts or suggestions in this regard would be most appreciated.

IACSC Publications

Guidelines for the Specification, Design and Construction of Cold Store Floors (published 1993).

Non members £55 + £5.00 p&p

Members £50 + £5.00 p&p

Design, Construction, Specification and Fire Management of Insulated Envelopes for Temperature Controlled Environments (published 1999).

Non members £120 + £5.00 p&p

Members £100 + £5.00 p&p

Fire Stable Certification Scheme for Insulated Panel Systems and Structures (published 2000; revised 2001).

Non members £45 + £5.00 p&p

Members £40 + £5.00 p&p

Model Building Specification for Design, Installation and Commissioning of Insulated Envelopes and Insulated Floors for Temperature Controlled and Ambient Environments (published June 2003).

Non members £45 + £5.00 p&p

Members £40 + £5.00 p&p

Revised text published October 2003

Non – members £65 + £5 p&p

Members £55 + £5 p&p

To order, forward your remittance made out to IACSC (European Division). On receipt of your payment the publications will be sent by return of post.

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Princes Risborough
Buckinghamshire
HP27 9AH

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Blowing Agents & Recycling/Waste

Disposal of Insulating

Sandwich Panels

Given the current legislation situation we believe it is important to provide an overview of the situation relating to the recycling or/and waste disposal of insulating sandwich panels. In this respect we are indebted to Michael Sansom of the Steel Construction Institute for sight of his draft report to the DTI on the first phase of the project on 'Recycling of Organically-coated Composite Steel Cladding Panels' (dated September 2003) Some of you will recall meeting him at last month's BFFF/IACSC seminar in Grantham..

Legislation: The EC Ozone Regulation (2037 of 29 September 2000) comes into full force on 1 January 2004, after a variable and lengthy transitional period of grace. Article 5.1d of the Regulation prohibited the use of HCFCs (in this respect HCFC 141(B)) for the production of PUR sandwich panels from 1 January 2003 and for PIR panels from 1 January 2004. **From 1 January 2004 only PUR/PIR products using ODP zero blowing agents (i.e. Cyclopentane/N-pentane/Isopentane or HFC 245a/HFC365/227) will be permissible.**

The Ozone Regulation also deals with the recovery/recycling/reclamation of controlled substances (i.e. in this instance HCFC 141B) and Article 16.3 states that "controlled substances in products, installations and equipment..... shall be recovered, if practicable".

Since the Destruct Facilities in the UK are designed to cope with domestic fridges, (although there are also larger facilities dealing with industrial fridges), this means that it is difficult, and to a degree impracticable, to use these facilities to destroy/reclaim PUR/PIR sandwich panels. However the EC Land-fill Directive was adopted officially in 1999 and will be implemented in the UK in July 2004. Several EC countries have already introduced a ban in land-filling of combustible/recyclable waste, and if such a policy were to be implemented in the UK, this would have a significant impact on the current practice in relation to disposal of PUR/PIR panels. At the least it may mean that the panels would have to be "treated" before disposal in land-fill.

In addition the problem of who should pay for the recovery/disposal of CFC/HCFC blowing agents will come into play in 2005, when the onus (for disposal of domestic fridges) will be lifted from Local Authorities. (*Note: PUR dust from fridge recycling plants is currently estimated at 7500 tonnes per year, and since it is deemed to be too fine to recycle it is placed in land-fill sites. Research to check its use as a filler in other materials is underway.*)

Members should also be aware that EC Legislation 2003/0189 covering use/recovery/disposal of HFCs, PFIs and SF6, is in advanced draft and will be tabled at the next EC Ministerial Council in December 2003. (*Note: A copy of the review of the legislation and of the Draft Regulation 2003/0189 is available electronically from the Secretariat.*) An in-force date for the Regulation is as yet unclear, but it is seen as "rounding-off" the requirements of EC Regulation 2037 of 2000 (Ozone Regulation).

SCI Paper: Several main points of interest involving sandwich panels include:

1. Current consumption of “internal” sandwich panels is roughly estimated at 4 million m² per year with a total stock of 45 million m².
2. EPS use has dropped significantly and has been replaced by MRF and PiR- at an estimated ratio of 60/40 .
3. Little evidence has been found for the re-use of external application panels. However an increasing proportion of polystyrene-cored panels for internal applications are entering the waste stream. (*Note: We have been informed by an EPS producer that recovery of EPS has already been carried out following the redevelopment of a major food plant. The EPS was recycled into floor insulation and the steel into other uses.*)
4. There is also a reported second-hand use of EPS panels for internal applications in agricultural buildings. This may be partly explained by the preference of insurers to provide cover for non-combustible or low-combustibility cored panels rather than EPS .
5. The scrap value of steel from roof and cladding products is between £35 - £70 per tonne.

Editorial Note: With all that is going on legislatively, IACSC members need to consider their positions (as suppliers, manufacturers, contractors/installers) vis-à-vis recycling and/or waste disposal of sandwich panels, including disposal of PVC. IACSC will maintain contact with DEFRA/DTI and the Steel Construction Institute so that we can keep our members posted on future developments.

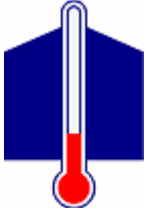
Review of Concrete Society Technical Report 34—2003 CSTR34 –2003

The long awaited and much heralded update of CSTR34, the 'bible' for the design and construction of Concrete Industrial Ground Floors has arrived.

CSTR34 –2003 updates, develops and enhances previous editions of CSTR34 providing useful information and guidance for informed clients, designers and contractors in respect of the design, specification and construction of wearing slabs. The Concrete Society are to be congratulated on the publication of such a useful document.

CSTR34 –2003 unlike its predecessors does make reference to insulated floor construction. However, the references are brief and few in number. CSTR34-2003 cross-references our IACSC document *Guidelines for the Specification, Design and Construction of Cold Store Floors*. Thus it will be a good link to an updated version of the IACSC Floor Guide and the companion Model Building Specification (MBS). The revisions of these IACSC documents was delayed pending CSTR34-2003 but now the Technical Committee will be concentrating on producing updated and user-friendly material for floor designers, clients and contractors.

Editorial note: We are indebted to Paul Withers (HPBW Ltd) for his review. Although members can obtain the new guide from the Concrete Society it is likely that our own Floor guide and MBS will be of greater use. If members have any comments/queries about the revised Concrete Society document, we will be pleased to respond.



***INTERNATIONAL ASSOCIATION FOR COLD STORAGE CONSTRUCTION
(EUROPEAN DIVISION)***

Stop Press

It is with regret that we announce the dismal news that Isoclad Ltd has been forced into administrative receivership. The company had been hit by a series of bad debts accompanied by very difficult testing conditions, and was unable to continue as a viable entity. However, the company will continue to trade, and seeks to be sold as a going concern. Regrettably there have been a number of staff redundancies, and we hope that those affected will soon find alternative employment. We hope that Isoclad Ltd may soon revive, albeit under different ownership.

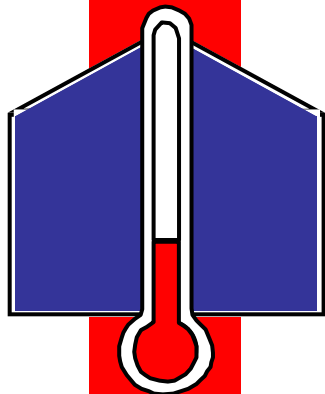
It is also worth noting that the panel manufacturer Metecho (UK) Ltd has ceased trading during this week. This is another very clear indicator of the exceedingly tough trading conditions for panel manufacturers in the UK, a point which we have frequently indicated to the Government and the insurance industry. The industry can ill afford to lose experienced and responsible companies, since this will have an inevitable impact on standards and products.

Stop Press 2

Management Buy Out at Hemsec Installations Limited

Hemsec Installations Limited, part of the long established Hemsec Group of Companies, has been the subject of an Management Buy Out, by the existing Managing Director, Richard Daley and six of his colleagues. The details were finalised on 10 October 2003.

Richard says, "I know how good my team is – we're convinced of our own capabilities and are willing to work hard to achieve success, that is why we've made this commitment. The name of Hemsec has always been at the forefront of our industry and we have every intention it will remain there".



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Up and Coming Events

November

3 November

FSDG seminar: Framing fire protection for the future

Contact: Ian Targett

Tel: +44 (0) 207 233 5955

E-mail: secretariat@fsdg.org.uk

6—8 November

IACSC 2003 Technical Seminar, Millennium Regal Knickerbocker in Chicago

Contact: Susan Shores

E-mail: email@iacsc.org

11 November, Reading

Fire Investigation—Who Cares?

Contact: Graham Ansell

Tel: +44 (0)118 932 2760

E-mail: ansellg@rbfrs.co.uk

13 & 14 November

Panama International, The 37th General Assembly of

Grand Hotel Toplice,

Cesta Svobode 12

SI-4260 BLED, Slovenija

E-mail: coolpanel@skynet.be

19 November

Annual Conference of The Institute of Refrigeration

E-mail: ior@ior.org.uk

20 November, Leeds

LGA/FPA Conference, Community Fire Safety: Working in partnership

Contact: Helen Bird

Tel: +44 (0) 207 664 3357

27 November, London

Burning Issues: Understanding insurance, risk and fire

Contact: Magda Lojszczyk

Tel: +44 (0) 207 505 6745

27 November

Fire Resistance of Ducting, Partitions & Other Separating Elements

www.mid-career-college.ac.uk

December

2 December

Fire Hazards Associated with Insulated Cladding & Sandwich Panels

www.mid-career-college.ac.uk

8 December

IMEchE Seminar on BS 9999: Fire Safety in the design, construction and use of buildings

Contact: Kim Young

Tel: +44 (0) 207 973 1291

12 December, London

Building Regulations—Part B

Contact: Tina Churcher

Tel: +44 (0)207 973 1258

E-mail: t_churcher@imeche.org.uk