



CONTACT

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Mick Stephens, the CEO of Timber Queensland (TQ) was at the meeting and he told us that TQ was working with DHP on the matter of timber wastes and would be happy to have TPAA involved in the whole thing.

This is where it gets spooky! About a month before, I organised to give a presentation to the Waste, Recycling Industry of Queensland (WRIQ) about ‘treated timber’. My presentation was to be about a week after the Technical Committee meeting. After my presentation I was chatting to the CEO of WRIQ (my apologies for all the acronyms but it saves a lot of typing) and it turns out that DHP is giving WRIQ members a hard time about treated wood waste.

What resulted was a meeting between TQ (Mick Stephens), WRIQ (2 x reps) and TPAA (Harry Greaves and me). It was generally agreed that ‘United we stand’ and the TPAA Technical Committee is to have a look at the limits set out in the DHP’s document “*Review of the Regulated Waste Classification and Waste-Related Environmentally Relevant Activity (ERA) frameworks Consultation Regulatory Impact Statement*”

On a quick glance through the numbers, we should be able to have input on the categories of regulated waste and where treated timber fits. At the moment, the requirements in the draft look pretty tough where “pretty tough” = “could cost the industry quite a bit of money”. Work on this is continuing.

Until next time

As always, please contact me if you have any questions, suggestions or issues.

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... .. from the TPAA President



President Gerry has continued to preside over the TPAA during the period since the last Issue

... .. and from the TPAA Secretary

Jack’s Perspective

Hello All: I am not happy (is this a rant?) with being negative all the time so have decided to change from a “Rant” to a “Perspective”.

Around the middle of November last year, there was a TPAA Technical Committee meeting held in Brisbane. One of the topics raised was recent visits by the Queensland Department of Environment and Heritage Protection (DEHP) to timber treatment plants throughout Queensland. A major issue to DEHP was the disposal of wood wastes containing preservative treated timber.



... and from the TPAA Technical Committee Chairman ...



The New Zealand standards board approval has been pushed back to March 5 for the AS/NZS 1605 series. This will mean that the publication of the standard will be delayed until this time. All the information that is needed for the approval has been received and we are now waiting on the approval date.

<https://shop.standards.govt.nz/default.htm?action=browseDrafts&draftTypeId=1&mod=drafts>

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Didgeridoo-ooo

One of the more interesting queries to TPAA late last year was the deliberate use of termites to hollow out the middle of small diameter timbers to make didgeridoos for the tourist industry.

We've known for a long time that termites are great artisans – and we also know that just like didgeridoos, they keep coming back! That's one of the reasons that our Members treat the timber isn't it?



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TPAA Technical Notes

Our diligent National Secretary **Jack**, recently updated the TPAA web page to include **Technical Note #0** which is a listing of all the TPAA Technical Notes available (see below).

These notes are free to anyone and I recommend them to all out there in timber treatment land. Use them in your own service and advice to customers.

- TN 1 Understanding the brand
- TN 2 Understanding Hazard Classes
- TN 3 Sapwood and heartwood
- TN 4 Retaining walls
- TN 5 Durability
- TN 6 Preservatives used to treat wood
- TN 7 Wood preservatives and hazard classes
- TN 8 Disposal of treated wood
- TN 9 Fire cleanup
- TN 10 Vineyard posts
- TN 11 Well treated
- TN 12 Using treated wood
- TN13 Preservative code numbers

On the matter of Technical Notes, Jack has drafted another note on the safety of CCA treated wood. This is being considered by the Technical Committee and hopefully will appear in the near future.

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Items provided in this CONTACT Newsletter are drawn from a number of sources.

The source of the item is quoted, either by publication or organization in line with the practice of fair reporting.

TPAA does not necessarily agree with or endorse the content of articles written by others.

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This may not be about treated timber as we in TPA know it but for those of us with great faith in the effective and efficient utilisation of forest products, what a breakthrough! Ed.



Researchers make softwood “hard as steel”

9 February 2018 | By GCR Staff

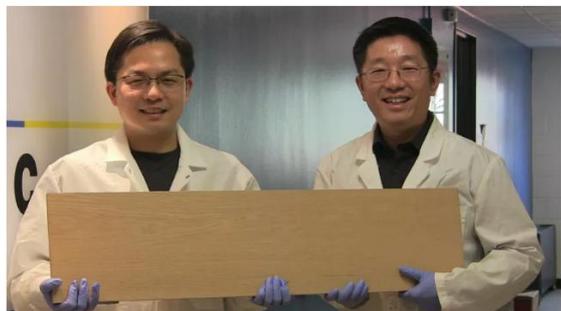


Image: Liangbing Hu (left) with Teng Li (UMD)

A simple three-step process for making wood so hard it can stop bullets has been developed by a team at the University of Maryland (UMD).

It consists of boiling the wood in a bath of sodium hydroxide and sodium sulfite, heating it, then subjecting it to compression.

“This new way to treat wood makes it twelve times stronger than natural wood and ten times tougher,” said **Liangbing Hu**, research team leader. “This could be a competitor to steel or even titanium alloys, it is so strong and durable. It’s also comparable to carbon fibre, but much less expensive,” added Hu, assistant professor in UMD’s department of materials science.

The team shot bullet-like projectiles at their super wood to test it. These blew straight through the natural wood, but were stopped by the new material. The discovery, described in the latest edition of Nature magazine, could make even soft woods, such as balsa, more useful in buildings.

“Softwoods like pine or balsa, which grow fast and are more environmentally friendly, could replace slower-growing but denser woods like teak, in furniture or buildings,” Hu said.

“It is as strong as steel, but six times lighter,” said **Teng Li**, associate professor and co-leader of the team. “It takes 10 times more energy to fracture than natural wood. It can even be bent and moulded at the beginning of the process.” *According to the researchers the process will work on any kind of timber.*

Scientists have been looking for a way to “densify” wood for many years. If successful, it could make trees into an abundant and ecologically sound construction material.

Although many methods have been tried, such as exposing the wood to steam or ammonia and then rolling it, like a steel bar, the results have been less than ideal, particularly with wood’s tendency to expand and contract in response to the amount of water vapour in the atmosphere.

Wood consists of cellulose microfibrils bound with two other polymers, lignin and hemicellulose.

The process of turning wood into paper and cardboard consists of freeing the cellulose from its polymers, which is the purpose of the sodium bath.

Once the polymers are partially removed, the compression collapses the cell walls and causes the hydrogen atoms in the cellulose to form new bonds with other atoms around it, which “aligns” the cellulose to create a hard, light, dimensionally stable material.

The challenge in this process is to remove just the right amount of lignin for maximum hydrogen bonding.

Hu and Li have previously led a project to turn wood into a clear material for replacing plastic, “photonic paper” for improving solar cell efficiency and a battery and a supercapacitor.

These wood-based technologies are being commercialised through a UMD spinoff company, Inventwood.

GCR

GLOBAL CONSTRUCTION REVIEW

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**Join Us in Johannesburg, South Africa
for the IRG49 Scientific Conference on
Wood Protection
29 April to 3 May 2018**

The IRG49 Local Organising Committee invites you to Sandton, Johannesburg in South Africa for the IRG49 Scientific Conference on Wood Protection on 29 April to 3 May 2018, to be held at the Sandton Hilton Hotel.

[Click here](#) for the IRG49 website which will be continually updated with the most recent information on the IRG49 meeting.



[Read more...](#) | [Register now...](#)

For off-line registration download the IRG49 Registration form here as: [Word](#) or [PDF](#)

The IRG49 meeting flyer is now available. [Click her to download and read the PDF](#)



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**Irish farmers co-op signs post deal
with timber company**

22 February 2018

Giant Irish farmers' co-operative Fane Valley has signed a purchase deal with Clifford Jones Timber for the latter's Platinum fence posts.

Northern Ireland-based Fane Valley, one of Ireland's biggest agricultural supply businesses, is launching the Platinum posts at Open Fencing events at 13 of its major outlets across Northern Ireland.



Platinum posts showing the incising which helps absorb preservative to boost performance

The posts will be on sale at Fane Valley's 30 outlets across Northern Ireland.

The posts, which carry a 15-year guarantee, are manufactured at Clifford Jones Timber's two sites – Ruthin in Denbighshire, North Wales, and at its plant at Gretna, in the Scottish borders. Clifford Jones Timber produces two million of the Platinum range of posts annually, approximately half their total production.

It worked with Tanalith timber preservative producer Lonza on the product, which is incised to improve penetration of the treatment into the timber.



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Father of wood preservation a forgotten name in his home town today

Venkatesh Bayya/TNN | Feb 5, 2018



Visakhapatnam: A man who revolutionised the boat building and shipping industry by inventing a preservative-corrosive so affective that it was used for almost six decades after being introduced (in the late 1930s), has now been forgotten by the people of his home town.



Sonti Kamesam was the inventor of ASCU, a product that prevented the decay of timber and timber products. Born in 1890 in Vizag, he was one of the prodigies of the Vepa-Sonti clans, who ranked among the elite of the intellectual aristocracy of the then Madras Presidency.

After primary education at Visakhapatnam, he graduated from Presidency College, Chennai. .

He joined in Forest Research Institute, Dehra Dun and was later promoted as an Expert-in-charge of Wood Preservation. In India, Kamesam had been busy conducting extensive tests which showed that the performance of his CCA mixture (which he actually called 'ASCU' from the chemical symbols for arsenic and copper) was far superior to that of Wolman Salts and other preservatives.

Laboratories in the US, UK, Germany and France soon came to the same conclusion – that CCA was a highly effective treatment and that the chemicals would 'fix' in the timber to give long-lasting protection against decay.

Till that time Wolman's formulation – famously known as Wolman Salts – contained dinitrophenol, a chemical manufactured by Hicksons, UK. No copper was used in Wolman Salts.

Kamesam sold the patent rights for CCA in the US to The Bell Telephone Company. They called the product 'Greensalts' and used it for the treatment of telegraph poles. In 1953 Hicksons took out the remains of the ASCU patent against payment of royalties for the British Empire and Dominions and in 1964 Hicksons bought an equity share in ASCU and traded in India as ASCU/Hicksons Limited.

D N Sinha, a nephew of Sonti Kamesam and grandson of late **Sir Vepa Ramesam**, chief justice of the erstwhile Madras High Court, reminisced: "I remember him as a man full of energy and ideas. He was extremely driven and wanted to carve a place for himself among the best in the clan." Kamesam jostled for space within that elite class of intelligentsia, within the family, and did it rather successfully, Sinha added.

B S Mahesh, a grand nephew of Kamesam and a great grandson of Sir Ramesam, recalled: "**His invention ASCU — a combination of arsenic, copper and chromium — changed the manner in which wood could be used for boat building and many other structures, including bridges.** The shelf life of fishing boats and yachts, which use a lot of wood, went up dramatically.

More importantly, telegraph and telephone poles of old were also treated with this product, ensuring that the wood used would not get corroded."

Kamesam's elder brother, **Sir S V Rama Murthy**, was the first Telugu origin senior wrangler from Cambridge (MA Tripos from Trinity College) and one of the senior members of the constituent assembly, which framed the Indian constitution. His cousin and father-in-law was Sir Ramesam, founder of the Ramanujam Mathematical Society, historian and father of the Neo-Malthusian Movement (family planning movement) in India.

K Satyanarayana, former director of IWSR Bangalore, lamented the fact that Kamesam was today a forgotten name in his home town. "**Today he is considered the father of wood preservation not just in India, but the world over.** Sadly, he is now long forgotten, even in his own home town Vizag. His product was used extensively to preserve the interiors of modern ships, not to mention many wooden boats which used to dock at Visakhapatnam harbour."

THE TIMES OF INDIA

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Aging ironwork? No, it's MDF for outdoor use

Large scale installations by Alexander Devereux for a sculptural park in the North East of England, inspired by famous bridges in the region, were fabricated from Tricoya, a specialized MDF for outdoor use.

Tricoya MDF has an outdoor useful life of 50 years, owing to its treatment with the acetylation process. Mounted outdoors as well as indoors, Devereux's works can be seen at England's Cheesburn Sculpture Park's permanent collection; and at Broomhill Sculpture Park in North Devon.



To get the aging metal effect, Devereux slathered plaster and iron powder onto the Tricoya. A hinge detail measuring 3.5m x 3.5m x 1.5m at shows the stunning effect. Devereux modeled the pieces after the original 19th century ironwork, drawing inspiration from the rivet patterns, which were both utilitarian, and decorative.

Tricoya is manufactured by Irish forest products firm Coilte, in its Medite unit, in partnership with BP – which makes the chemistry used in acetylation – and Accys Technologies, which produces Accoya solid wood made from radiata pine and other lumber using the acetylation process.

Tricoya MDF panels (www.tricoya.com) are made using wood chips that receive the acetylation process before milling into panel. They are lightweight, sustainable and offer a 50 year above ground and 25 year in ground guarantee, revolutionizing the opportunities presented to architects, specifiers, designers and home owners the company says. Tricoya was launched to the U.S. market at the 2017 AWFS Fair in Las Vegas.

Source: woodworkingnetwork.com



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Duped at the dump: Recycling rort as the truth is buried

Thousands of tonnes of NSW waste sent to Queensland to be recycled is trucked straight to landfill, costing taxpayers millions in lost levies.

By Mark Solomons - 26 FEBRUARY 2018



*The heap: Construction waste piled high.
Photo: Fairfax Media*

Thousands of tonnes of New South Wales waste sent each week to south-east Queensland to be recycled is trucked straight to landfill without any processing, a Fairfax Media investigation has found.

In what industry insiders admit is a “rort” that has been going on for at least three years, waste companies are using Queensland recycling facilities to obtain paperwork exempting them from NSW rules limiting the transport of metropolitan waste by road more than 150 kilometres from its source.

Developers are also requesting the same paperwork to show their waste has been handled in a sustainable way to qualify for “green” building certificates used to market housing, office and retail projects.

But only a tiny proportion of the material - typically plasterboard, **treated timber**, paper and plastic from building and demolition sites in Sydney and Newcastle - is actually being recycled.

Surveillance of Queensland recycling and dump sites by Fairfax Media over several weeks, including access inside one of the facilities on multiple occasions, showed that material tipped off by interstate trucks at the recycling facilities was immediately reloaded into local trucks and taken straight to landfill.

By contrast, local construction and demolition waste arriving at one of the facilities was sorted, filtered and processed.



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Is wood ‘fireproof’? - part 2

31 January 2018

Don't confuse fire retardance with fireproof, says Jim Coulson in his second look at wood and fire



In my first piece about wood in fire, I started off by remarking that we all know that wood burns... and I used the example of attempting to light a normal domestic fire with large chunks of wood and seeing how unsuccessful that would be in reality.

However, although wood is renowned for being difficult to ignite, and also – as I showed in the previous article – has a fantastic ability to hold back fire, through its thickness (which is the concept of “burn through” time that we now refer to as “fire resistance”), it does, of course, eventually burn, but only when it is involved in a fully developed fire.

It is when wood is actively involved in a fire that its other property might come into play: its ability to prevent the spread of flame from one place to another along its surface and not through its thickness. That “other property” is known as flame retardance and it is the one thing that wood is not quite so good at, where fire is concerned.

Therefore, it needs to be treated in some way to improve its ability to resist the spread of flame and that is where the misunderstanding has crept in – that it is possible in some way to make wood “fireproof”.

Let me be clear: **wood needs no treatment or other process to give it very good fire resistance – because it is naturally good anyway**, as I showed last time. And even though it must be treated to improve its spread of flame properties, it is a relatively straightforward matter to beef up its flame retardant abilities.

Spread of flame, being a surface phenomenon, only therefore requires the exposed timber surface to be treated and so it is almost never the case that wood

needs to be impregnated with flame-retardant chemical to any great depth (the converse of what is often needed with wood preservatives).

All that is needed to make these treatments effective is for sufficient loading of chemicals to be impregnated into the few millimetres below the surface so as to satisfy the manufacturers’ requirements. And there is at least one type of impregnation treatment that can be used outdoors, since it is resistant to atmospheric humidity.

However, the impregnation of flame-retardant chemicals is not the only way to achieve the desired result.

A brush-applied or spray-applied coating will often do instead – and, indeed, that approach can be used to upgrade timber already in place, which would be very hard to treat by impregnation without removing it and/or replacing it. There is no exterior version of these “surface application” products currently available.

The two processes – impregnation and an applied coating – are based on different interactions, although they will both achieve the same desired effect: limiting flame-spread within an interior space.

The main places where wood or woodbased products are used, for example as decorative panelling, are in places where crowds may gather, such as concert halls or in areas used for means of escape, such as corridors and stairwells.

Impregnation treatments use chemicals that interfere with the actual chemistry of combustion and thus inhibit the development of the fire, whereas applied coatings are usually based on “intumescent” materials that “foam” up and expand when heated and thus smother the flames and so prevent them from spreading.

So the message here is: **while wood is generally brilliant in its behaviour in fire, its one Achilles heel – that it will allow flames to spread along its surface – can be easily overcome by treating it.** But please don't let me hear you in future talking about making wood “fireproof”!



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Part 6 of Series: Harry Greaves

City of Residence: *Melbourne (Victoria)*

Inhabitants at my residence: *Self and Sandra, my wife of 53 years*

Start date and current position : *1999, HG Consulting: Principal*

What I like best about working for HG Consulting: *Self-management*

Best job: *CSIRO forest products research, and now my own job!*

Worst job: *Waiter at Butlins Holiday Camp, way back when...*

Favourite place to live: *Most areas of Italy*

I'm happiest when: *We're interacting with the family (or is it at Standards meetings?!)*

I'm proudest of: *My family, the Award of PM's medal, my DSc., IRG-WP recognition with Honorary Lifelong Membership Award*

Favourite sports or pastimes: *Reading, listening to good music, dining out*

The Top 3 Highlights of my Life: *All family-related, but also living in Raleigh, USA and Berlin were great experiences*

Pet peeves: *Bastardisation of simple English, e.g. methodology instead of method; mixing brought with brought; modern compound words like fusion- this that or the other; young people smattering their talking with "like"; and, political correctness!*

Favourite song, movie, book, or comedian:

Song: (Music): Sibelius, Brahms, Bruckner, etc. – hard to choose

Movie: Chariots of Fire

Book: Any Le Carré novel

Comedian: the Goons, closely followed by the Monty Python lot, and lately Michael McIntyre

Best Vacation: *Most of those associated with travelling to and from IRG/AWPA meetings*

Favourite Vehicle: *I've only ever had Volvos, but Sandra's Audi isn't bad to drive*

Before I die, I would like to:

See AS/NZS 1604 make sense and be easy to use!

Seriously though, I would like to see the Aurora Borealis, and travel the Trans-Siberian rail route, especially the old silk road through Samark and much, much more.

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