CONTINUED FROM FRONT

to be certified, who needs to be licensed and so on. We were wondering too, and so we have spent some time trolling the Department of Building and Housing (DBH) and Standards Authority websites and publications to gain an understanding of what and who needs to be licensed, approved and so on. Here is what we found:-

When Licensing Applies

The DBH has decided that plumbers do not need to be Licensed Building Practitioners for the purposes of installing plumbing and drainage systems, although they may obtain this license if they choose. This is because the DBH is satisfied with the existing licensing regime. However, every building site must have a Licensed Building Practitioner to supervise those works that are defined as being critical to the health and safety of the people using the completed building. The DBH anticipates that around 28,000 people will become Licensed Building Practitioners which equates to around 19% of the building sector workforce.

Certified Products

The Building Act 2004 provides for a Product Certification Scheme which certifies that specific products comply with the Building Code. Product Certification has legal status and building consent authorities must accept a Product Certificate as evidence of Code Compliance as long as that product is being used in accordance with the detailed application and installation instructions that must accompany certified products.

This means that you can safely choose certified products and rest assured that if used and installed correctly, they meet the Building Code. To help the certification process, those products that were included in the previous Building Act as Acceptable Solutions are automatically deemed to be certified. The copper system was just such an Acceptable Solution and so is automatically approved for use under the new Act. Detailed instructions on the use of copper tube are included in our existing Compliance Document, copies of which can be ordered free of charge by emailing copper@grosv.co.nz Product certification of all products will be reviewed annually.

IF IT AIN'T BROKE

We spotted a very nice story about why you shouldn't change a good thing for the sake of it in The Economist recently. Deliveries of the Airbus 380, due for release next year, have been held up for two years, costing Airbus $2 billion, all for the sake of the wiring loom. It seems that during its evolution, designers changed the loom to aluminium wire from the originally specified copper wiring. However, now that they are well down the track, the makers have struck a problem. The aluminium wiring is significantly bulkier than copper and it doesn't bend quite as well - so it doesn't fit into the space originally allowed for it.

The front end of the plane is made in France and the back end in Germany and both have had to modify the cable routing on the 'fly' (excuse the pun) which they have both done independently. The result? The wiring of the two halves of the plane don't match! The French Plan A and the German Plan B are apparently incompatible.

If only they had stuck with copper!

SNIPPETS

COPPER SURFACES ELIMINATE DEADLY PATHOGEN

MRSA (Methicillin-Resistant Staphylococcus Aureus) is a bacterium that can cause fatal hospital infections and only responds to the strongest antibiotics.

The three strains of MRSA were each tested on copper, brass and stainless steel surfaces. On copper all three strains were completely killed after 45, 60 and 90 minutes respectively. On brass they were dead in 270 minutes while the bacteria remained viable on stainless steel.

DO YOU WANT CHIPS WITH THAT, SIR?

Nanotechnology is the modern buzzword which describes characteristic dimensions of materials less than a micron or one millionth of a metre.

Copper is already there, speeding up silicon chips in PCs, mobile phones and GPS units by allowing more components to be squeezed onto these wafers, wired up with copper conductors 0.025mm in width. This nano size is only possible because copper has a much higher electrical conductivity compared to aluminum, the traditional material used on chips.

A NEW STANDARD FOR H_20

Until now, New Zealand has used the World Health Authority guidelines to specify potable water quality. It has been the role of the individual Councils to monitor compliance. As many of you will know this has resulted in inconsistent water quality and pH levels throughout the country.

Over the past couple of years a new Standard for water quality has been working its way through the bureaucratic system and now appears to be close to becoming law. The Standard will prescribe the required water content and quality, together with a clear framework for the testing of water quality, which should improve the consistency of our drinking water right around the country.

WIN A MAKITA 13mm 18V CORDLESS DRILL

Help us gain a clearer picture of who you are and what information and support we can provide you by answering this questionnaire. Complete the following and post to reach us no later than December 15th, 2006, and you'll go in the draw to win!

Name:

Company (where applicable):

Address:

Phone number:
(this is only to allow us to clarify any of the answers you have given)

GENERAL QUESTIONS

1. Occupation (please tick)
   ☐ Plumber ☐ Gasfitter ☐ Apprentice
   ☐ Related tradesperson (please specify)
   ☐ Trade supplier ☐ Hydraulic engineer
   ☐ Architect ☐ Council, inspector or similar
   ☐ Other (please specify) _____
2. What type of work do you mainly do?
   ☐ Residential ☐ Commercial ☐ Industrial
   ☐ Civic/municipal ☐ Air-conditioning/ Refrigeration ☐ Other (please specify) _____
3. What tube system do you generally use/ specify/inspect?
   _____
4. Why? _____
5. Is this what you most like to use/specify?
   ☐ Yes ☐ No
6. If you answered No to the above question, why don't you use your preferred material?
   _____
7. How do you rate copper as a tube system?
   (on a scale of 1 to 5 with 1 being excellent) _____
8. What do you feel are its strengths or weaknesses?
   _____
9. Do you want more info about copper and if so, what?
   _____

WEB USAGE

1. Are you are regular user of the web?
   ☐ Yes ☐ No
2. Have you visited the New Zealand Copper Council's website?
   ☐ Yes ☐ No (if no proceed to question 8)
3. Why did you go to the website?
   _____
4. Did you find what you were looking for?
   ☐ Yes ☐ No
5. What sort of things would you like to see on the website?
   ☐ Product info ☐ Installation info ☐ Tables and charts e.g. pressure calculations ☐ Case studies
   ☐ International applications ☐ Copper news
   ☐ Other (please specify) _____
6. If not, why?
   ☐ Don't use the web ☐ Couldn't find it
   ☐ Didn't know you had one
   ☐ Other _____
7. Did you visit any of the links on our website?
   ☐ Yes ☐ No
8. What other websites are you interested in?
   ☐ Information ☐ Auction sites ☐ Entertainment
   ☐ Other (please specify) _____

LEISURE TIME
(so we can build a better profile of you, our users)

1. When you are not working what are your main hobbies/pastimes?
   ☐ Family ☐ Travel ☐ Playing sport (what) _____
   ☐ Watching sport (what) _____
   ☐ Fishing ☐ Boating ☐ Golf
   ☐ Other (please specify) _____
2. What TV channels do you watch most?
   1st _____ 2nd _____ 3rd _____
3. What type of programmes do you most like to watch? (please number in order of preference)
   ☐ News ☐ Documentaries ☐ Drama ☐ Films
   ☐ Comedy ☐ Sport ☐ Other (please specify) _____
4. What radio stations do you listen to most?
   1st _____ 2nd _____ 3rd _____
5. Do you read newspapers? ☐ Yes ☐ No
6. What type of magazines do you like to read?
   ☐ Trade ☐ Business ☐ Sport ☐ Automotive
   ☐ Hobby ☐ None ☐ Other (please specify) _____
7. Do you enter competitions? ☐ Yes ☐ No
8. If yes, what kind of prizes do you prefer?
   (please number in order of preference) ☐ Small instant prize
   ☐ Redeemable points ☐ Money ☐ Product
   ☐ Travel/holiday ☐ Tools ☐ Car ☐ Ute
   ☐ Boat ☐ Other (please specify) _____

Post to New Zealand Copper Council, PO Box 7469, Wellesley St, Auckland. Or fax to 09 302 0392. Answers are confidential and will be used for quantitative purposes only. Thank you for your time answering the above. Your answers will be used to ensure that we provide you with better product knowledge and service.

COPPER

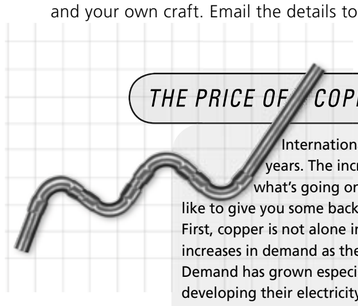
THE NEWSLETTER OF THE NEW ZEALAND COPPER COUNCIL | NOVEMBER 2006

WELCOME to this issue of the New Zealand Copper Council newsletter. We have put together what we hope is an interesting and informative 'Copper' with something for everyone.

We look at a couple of topical issues such as the price of copper and the standard for copper plumbing tube in New Zealand. We look at the growing range of applications for copper, as the greenest building material of its type.

We ask you to tell us what kind of information you would like to see in this newsletter, on our website or other publications. All those who take the time to complete the questionnaire will go in the draw for a superb Makita 13mm 18V Cordless Drill.

Lastly, we ask you for any interesting stories about where, why and how you have used copper so that we can build up a selection of case studies to include in future newsletters. These can be commercial and residential applications, new homes...whatever. Please send us details such as the name and type of building, your phone contact number and the best time for us to call, and one of our people will then ring up and interview you about the story. Our readers enjoy stories of real applications using copper, particularly where curly problems have been overcome using copper and your own craft. Email the details today to:- **copper@grosv.co.nz or post to N.Z. Copper Council, PO Box 7469, Wellesley St, Auckland.**



THE PRICE OF COPPER

Internationally, copper prices have quite literally soared over the past couple of years. The increases have been unprecedented, both in size and in timescale - so what's going on? To help you explain the increases to your customers we would like to give you some background.

First, copper is not alone in its rising prices. All commodities have seen rapid and sustained increases in demand as the world economy has grown, and as the third world industrializes. Demand has grown especially fast in developing countries such as China and India, which are developing their electricity, transport and reticulated gas and water infrastructures, all reliant on copper as well as other metals.

Increases in metals-based manufacturing in these countries adds to this demand.

So demand is way up, but growth in supply is not following as quickly, despite there being a huge volume of copper resource in the ground, largely because this growth in demand was not predicted by the major copper mining countries in Africa and South America.

A quick look at the copper content of world mine production shows actual production in the past twenty years has increased only 78%. With the length of time it takes to expand existing mines and refiners and to open new facilities, supply has lagged significantly behind demand - the classic outcome of this supply/demand imbalance has been increased prices, the price tripling in the past 18 months alone.

Adding to this supply/demand effect has been the involvement of commodity traders and hedge funds. These traders, with vast amounts of investors' funds to manage, have seen the opportunity to profit from the price movements in the commodities markets. The traders buy and sell "positions" in the commodities markets, exploiting the difference between current and future prices. The traders have created artificial "demand" in the commodities markets, pushing prices higher and faster than the real market.

All of these factors have seen the demand for copper rise enormously. In future, expanded mining and refining capacity will correct the supply/demand imbalance. When the commodity markets no longer offer hedge funds profit opportunities, they will abandon them for the next big thing. Prices will relax to more 'normal' levels - the only unknown is - when?

And in our markets? Despite these rising prices there is still very good consumer demand for copper as a plumbing material. The small cost of copper relative to the total cost of building, and the rapid increases in the value of buildings have also placed these price rises into context. The proven quality of copper and the reassurance it provides the end user is another major motivation for choosing copper. With problems associated with 'leaky buildings' continuing to emerge and other new product failures in the public eye, new home builders are seeking where possible to overcome such pitfalls with the use of tried and true building solutions such as copper.

In terms of pricing, we cannot predict where prices may go in the future. However our members will continue to provide good continuity of supply and predictable pricing.

NEW TRICKS

One of the reasons why copper usage has continued to increase has been the upsurge in demand for energy-efficient and new energy-savings products, many of which rely on the unique properties of copper tube to operate. Internationally, environmentally friendly direct-exchange geothermal heating and cooling systems are becoming more popular. These use copper tube to harvest the earth's natural heat, transferring rather than generating heat. These systems can both heat and cool homes and small commercial buildings efficiently.

Copper roofing has also gained in popularity overseas, because of its long life and low lifetime cost. Copper is one of the most energy-efficient roofing materials available today according to the Centre for Resourceful Building Technology, being highly durable, low maintenance and fully recyclable. As they are naturally corrosion resistant, copper roofs last up to 100 years and longer, with the oldest known roof in the USA being the Philadelphia Christ Church which dates back to 1727.

In New Zealand, the costs of fuel, electricity and gas are seeing the same drive towards more efficient methods of cooling, heating and running homes. One of the big growth areas is solar heating and here copper really comes into its own, as the ideal solution for plumbing solar systems. Designated as an 'uncontrolled' heat source, solar panels can produce water temperatures that can easily exceed 100°C. This means that only metal pipe systems should be used - no plastic system can withstand the temperatures that solar systems can generate.

THE NEVER ENDING STORY

Ironically in the face of the above article, one of the primary sources of copper is recycling.

For example in the US around 66% of all primary copper consumed has been recovered and recycled. Copper can be recycled over and over with no loss of its engineering properties.

Also the process of recycling requires only 15% of the total energy otherwise consumed in mining, milling, smelting and refining.

There are around 2.65 trillion kilograms of known copper mineral reserves on earth, of which around 318 billion kilograms have already been mined worldwide. Of this nearly all is still in use today.

LICENSES, APPROVALS, CERTIFICATIONS

With the new Building Act and subsequent requirements for licensed practitioners and Acceptable Solutions, you could be forgiven for being confused about what needs