

NEWS



Issue 50 | December 2004



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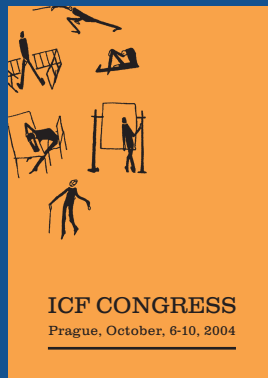
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ICF CONGRESS IN PRAGUE



105 participants found their way to Prague to attend this year's ICF Congress and our social events. The Congress was opened with a keynote speech by Mr. F. Scheer, Ambassador of France, who gave his view on the recent and future enlargement of the European Union. Three Business Sessions followed covering Investment Opportunities in Power Networks, Opportunities for Cable Makers in the Oil & Gas Industry and Market & Technology in Broadband Access. The new President, Mr. Cunningham, thanked Mr. Hauser for this outstanding leadership as President of the ICF over the last 2 years. He reminded the audience that a number of mergers, realignments, divestitures and other structural changes have occurred which in his view will continue since the cable industry needs to adapt to the globalization of the world economy and the effects of new technology. The 2005 Congress will be held in Tokyo from 19 to 23 October.

The complete congress proceedings are available for members on the ICF homepage, the printed version and CDs have already been sent out.

CABEX 2005

The 4th International Specialized Cable & Wire Exhibition, CABEX, will take place in Moscow from 1 – 4 March 2005. CABEX is the most representative international trade show in Russia covering the production of cables, wires and accessories, new mounting and laying technologies and testing of equipment. It attracts hundreds of specialists from industry and science. For more info check www.cabex.ru call +7 (095) 26895-20 or email to rva@mvk.ru.

ICF WEBSITE – NEW SERVICE

As a new service to members we will provide brief company/industry news on our website. The news are provided by CRU and will be updated on a regular basis. We will build up a news archive which eventually will replace the Company News in our Newsletter.

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RESIDENTIAL WIRING AND ELECTRICAL SAFETY IN EUROPE

Safety standards in most areas of life are constantly improving but those for domestic electrical installations are falling behind. Electricity use in the home is rising but the ability of some existing electrical installations to cope, and to cope safely, is diminishing.

While it is fair to say that, in most parts of the world, wiring in new homes is safe if legislative guidelines are adhered to, existing installations are often much less safe. The problem is most acute in Europe, where much of the housing stock is old and remodelling and refurbishment takes precedence over new building. Studies carried out for the European Copper Institute and others in the context of the Forum for Enhanced Electrical Domestic Safety (FEEDS) indicate that much of Europe's

... damage to property is around € 3.8 billion annually ...

domestic wiring is potentially unsafe. The FEEDS programme brings attention to the need for regular inspection of existing installations and a mechanism for ensuring that standards are improved.

The Safety Issue

It may seem self-evident that an electrical system needs to be »safe«, but what do we mean by this term? Safety is perhaps best defined by the consequences of a lack of it. In the case of electrical installations, the lack of safety results – in the worst cases – in either fire or fatal electric shock.

Good statistics on just how many house fires are caused by faulty electrical instal-

lations are simply not available, but the figures that are in the public domain indicate that the issue is a major one. In the European Union, there are approximately 600,000 reported domestic fires annually. This is equivalent to three in each thousand homes catching fire every year. The cost of these fires in damage to property is around € 3.8 billion annually, but the total cost to society is much higher. Taking into account injury, intervention, fire prevention and insurance activity, the total cost is around € 16.7 billion annually.

Of course, not all fires are electrical in origin. Estimates as to the share of fires in dwellings with electrical causes vary widely, from 10% to 25%. It is, however, widely recognised that fires with electrical causes tend to be much more seri-

HOUSE FIRES AND THEIR COST

	Number of Domesitic Fires				Cost of Domesitic Fires			
	No. ('000)	per th. head	per th. dwelling	per TWh	€ bn	€ per head	€ per dwelling	€ per GWh
European Union 15	493,6	1,3	2,7	0,7	15,9	41,9	87,3	21,1
Benelux	31,0	1,1	2,6	0,6	1,3	48,5	111,8	24,7
France	100,0	1,7	3,4	0,6	3,0	50,3	101,7	18,9
Germany	118,9	1,4	2,8	0,8	3,5	42,7	83,5	24,7
Italy	69,7	1,2	2,6	1,0	1,9	32,6	70,5	27,5
Spain	39,6	1,0	1,9	0,7	1,0	24,3	47,5	17,7
United Kingdom	72,0	1,2	2,8	0,6	2,6	43,0	100,4	21,0
Other Countries	62,4	1,2	2,4	0,4	2,7	50,2	101,8	17,4
New Members 10	111,0	1,5	4,6	1,5	0,8	11,3	34,9	11,4
European Union 25	604,6	1,3	2,9	0,7	16,7	36,9	81,1	20,2

Source: FEEDS, Eurostat, Metalica Ltd.

ous than those with other causes, perhaps being as much as five times as costly on average. Taking the figures available, it is fair to assume that there are 80-120,000 domestic fires in Europe annually with electrical causes, costing somewhere in the range € 4-7 billion.

Death and injury caused by fire cannot be measured in Euros, and they must be a focus of concern. There are around seven fire deaths per million inhabitants in Europe annually and more than ten times this number of injuries. It is probable that 20-30% of fire deaths and injury result from fires with an electrical cause, most of which occur in the home. According to calculations presented in the FEEDS document »Towards Improved Electrical Installations in European Homes«, there are 3,250 domestic fire deaths annually in the EU-25.

It is clear from the figures that there is a huge cost to society in fires caused by poor domestic electrical installations. The extent of death and injury caused by electric shock is much less easy to determine, but anecdotal evidence suggests that this is also very significant and often

the result of poor electrical systems rather than simple human error.

... damage, death and injury caused by poor domestic electrical installations in Europe is increasing.

The safety of domestic electrical installations is a major issue, but is the issue becoming more important? Here, the evidence is ambiguous: the total number of domestic fires is fairly stable, not increasing. It appears, however, that the proportion of fires with electrical causes is rising, as other sources of fire (cooking, open fires, candles, cigarettes) become less of a hazard. The trend in electric shock is unknown. On balance, it is fair to assume that damage, death and injury caused by poor domestic electrical installations in Europe is increasing. This must be considered to be unacceptable in a society that is growingly safety conscious.

Identifying Electrical Installations that are unsafe

Faults in any of the following can be identified as a safety hazard:

Earthing: (or Grounding), to enable a fault current to flow directly to earth.

Earth Leakage Protection: To prevent an excessive build up of current leaked from electrical appliances into the main wiring system.

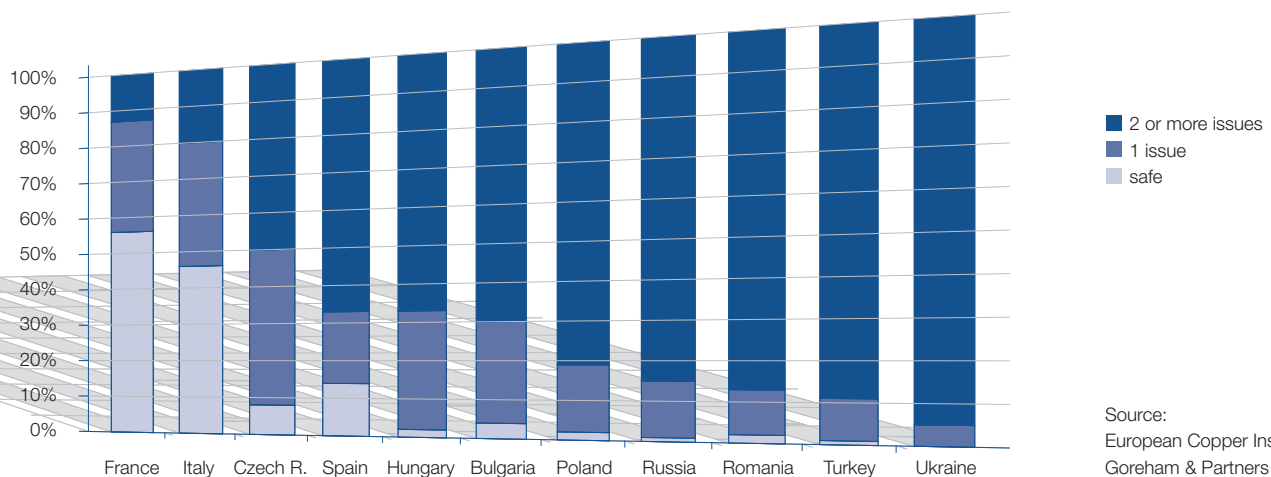
Over-Current Protection: To provide a safe ceiling current load above which a circuit cannot operate.

Wire Sizing: To prevent too-small wires carrying more than design loads or, alternatively, the need for an excessive over-current protection constraint.

Over-Voltage Protection: To prevent damage to equipment caused by over-voltages resulting from lightening or switches in the electricity distribution grid.

A variant of this basic checklist was used by the European Copper Institute when it commissioned a survey of domestic electrical systems in Europe. The work was carried out mainly in 2001 as part of the FEEDS programme and the survey provides clear evidence that domestic installations are vastly inferior

DOMESTIC ELECTRICAL INSTALLATION DEFECT SURVEY RESULTS SUMMARY



Source: European Copper Institute, Goreham & Partners

REPORTED DEFECTS IN THE EUROPEAN SURVEY OF DOMESTIC ELECTRICAL INSTALLATIONS

	Adequate Earthing	Earth Leakage Protection	Over-Current Protection	Correct Sizing of Wiring	Protection Against Contact	General Issues on Quality
European Union 15						
France	11%	68%	21%	4%	-	6%
Italy	8%	7%	4%	-	35%	-
New Members 10						
Bulgaria	10%	65%	23%	19%	24%	55%
Czech Republic	8%	63%	18%	12%	10%	58%
Hungary	14%	43%	22%	8%	9%	82%
Poland	48%	66%	41%	25%	9%	52%
Romania	15%	84%	43%	26%	11%	60%
Extended Europe						
Russia	55%	95%	20%	26%	26%	73%
Turkey	58%	86%	18%	18%	11%	63%
Ukraine	30%	93%	22%	15%	16%	59%

Source: European Copper Institute, Goreham & Partners, Metalica Ltd.

in quality to the level one may reasonably expect.

In the EU-15 countries, covered only around 40% of installations could be regarded as safe, with 30% showing two or more defects. For the New Member states and the European periphery the situation was much worse, with only 2% or so of installations being »safe« and around 80% showing two or more defects.

DIY extensions ... are indicative of makeshift measures to ensure adequate functional use of wiring systems that are not up to the job.

In carrying out its research, the survey focused on the physical evidence that indicated whether or not electrical installations were safe. **Inadequate earthing** was linked specifically to sockets not being earthed and metal piping not universally being connected to earth. **Earth leakage** was indicated by the absence of RCDs (Residual Current Devices) and

the lack of protection of all areas by an RCD. The **lack of over-current** protection was indicated by the absence of fuse or circuit breaker protection, the replacement of such devices by higher rated ones or their random tripping. **Incorrect wiring size** was indicated by sockets and switches getting hot and black burn spots on sockets, switches and panels.

The survey did cover »Protection from Contact«, indicated (in most cases) by the experience of electric shock. It also addressed other »Quality Issues« that indicated deterioration (loose sockets, loose contacts), home made solutions to inadequate systems (extension cords under carpets, DIY system extensions) and the lack of inspection (no inspection for the past ten years). Despite the fact that not all of these issues were surveyed in each country, the survey does give a very good indication of the poor state of Europe's domestic wiring systems.

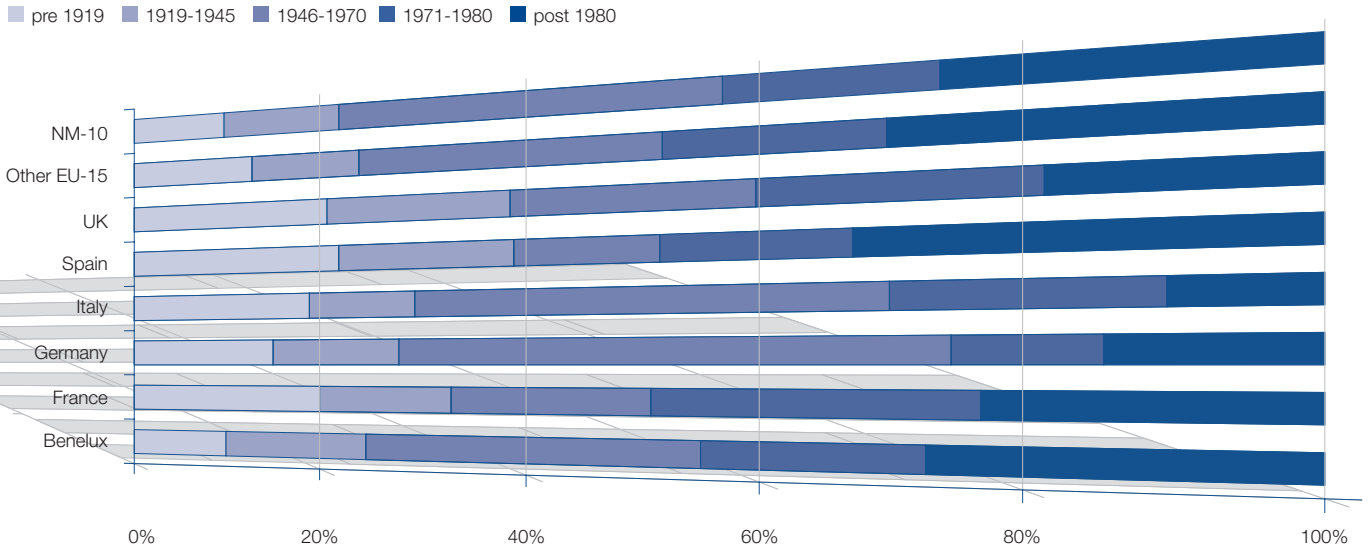
By far the most common safety issue observed in the survey was the lack of RCD protection from earth leakage. Earthing, in general, was less of a concern and inadequate over-current protection was shown to be a problem in around 20% of homes across Europe. It appears that low sizing is fairly widespread in Central and Eastern Europe, with around 20% of survey respondents reporting sockets and switches getting hot.

Perhaps the most telling of all indicators of inadequate electrical installation is the regular experience of electric shock. The situation seems to be particularly bad in Central and Eastern Europe, with 10% of respondents giving a positive result in most countries and figures going as high as 26% in Russia.

Europe's ageing housing stock is one major reason behind its poor standard of electrical installation.

Regarding other quality issues brought out by the survey, the presence or

THE AGE OF EUROPE'S HOUSING STOCK



absence of extension cords under carpets and DIY extensions is revealing, as both are indicative of makeshift measures to ensure adequate functional use of wiring systems that are not up to the job. The figures show a very high level of use of extension cords in homes in many countries of Central Europe (50%), with an exceptionally high 82% being recorded in Hungary. DIY additions to the network are also quite common, being apparent in around 20% of homes. Unfortunately, comparable data is not available for EU-15 countries, although France shows a 5% rate of DIY extension.

Why is the Present Standard So Low?

Although there are many reasons why individual domestic electrical systems may be inadequate or unsafe, by far the most important is the prevalence of old installations that have not been sufficiently upgraded over time. Not only do electrical systems deteriorate with age, their intrinsic design becomes unsuitable as greater functionality is required. In assessing why electrical systems in Europe may be inadequate it is necessary to look at the date of the original

installation, changes in functional use and the presence of upgrades.

The date of original installation of electrical systems is normally the same as when a dwelling is built. Europe's ageing housing stock, therefore, is one major reason behind its poor standard of electrical installation. According to Eurostat data, less than one-quarter of Europe's housing stock was built after 1980. Indeed, well over 60% of the region's housing stock was built prior to 1971. The situation in the EU-15 and the New Member states is very similar in this respect, Germany and Italy showing particularly high shares of ageing stock.

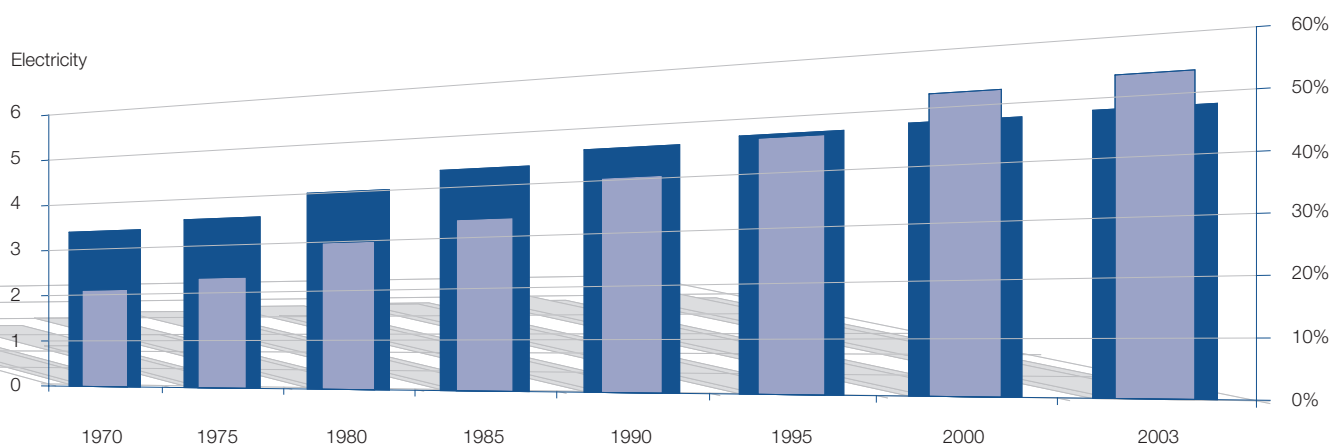
The number of electrical and electronic appliances per dwelling has increased much more quickly than electricity consumption

The functional use of electricity in the home has changed sufficiently to make many domestic installations unsuitable for their purpose. The trend is evident in the electricity consumption figures. The amount of electricity consumed per dwelling in Europe increased from

EUROPE'S ELECTRICITY CONSUMPTION AND MAJOR ELECTRICAL APPLIANCE PENETRATION PER HOUSEHOLD 1970-2003

■ MWh per Household ■ Appliance

Appliance



Source: Global Trade Atlas, Metalica Ltd.



around 3.4 MWh per dwelling in 1970 to 4.8 MWh in 2003 and this despite quite a sharp drop in the average number of people per household.

Electricity consumption alone does not tell the whole story. The number of electrical and electronic appliances per dwelling has increased much more quickly than electricity consumption, especially since 1980. Items such as dishwashers, microwave ovens, audio visual equipment, personal computers and rechargeable devices such as mobile phones and power tools are changing how electricity is used in the home.

The growing number of devices means that there is a need for more sockets in each room. Recent research has shown that even electrical installations now being put in place often fall below functional requirement in this respect; older installations typically fall well below an acceptable standard. A lack of sufficient outlets often means overloaded adaptors and trailing extension leads used as a permanent part of the electricity network. This, combined with circuits and individual wires that are

required to carry more current than they are designed for, creates a fire hazard. In Central and Eastern Europe, the situation is made worse by the historical use of aluminium wiring, where the loosening of contacts over time creates an additional danger.

... natural lethargy, lack of awareness and lack of personal control ...

The original date of installation of domestic electrical systems would not matter much if upgrading and replacement fell in line with changing requirements. The evidence of the FEEDS survey indicates, quite clearly, that this is not happening. There are several reasons: one is natural lethargy – if a system appears to work there is little motivation to change it. A lack of awareness of potential hazards is another issue but perhaps more important than both of these issues is lack of personal control over system upgrades, i.e. the occupier of a dwelling is not able to determine whether or not a building's wiring is fully maintained. Apartments account for about 50% of Europe's housing stock. Here, the occupier, at best, has only joint

responsibility for electrical system upgrade.

The Task Ahead

The evidence suggests a very low rate of upgrading and replacement of domestic electrical installations, but how big is the problem? Based partly on FEEDS data, we estimate that the rate of actual replacement and fundamental upgrade amounts to less than 0.6% of the existing housing stock annually. At this rate, it would take more than one hundred years to replace all of Europe's deficient wiring!

While the calculation method we have used is not particularly precise, it is enough to demonstrate that there is a desperate need for more upgrading of domestic electrical installations in Europe.

A return to more sustainable levels of new building would help, but the core concern must be how to address the electrical safety issue in Europe's huge stock of ageing, and long-enduring, housing.

How Does Europe Compare?

In some ways, Europe is unique. Europe is exceptional in both its huge stock of older housing and its very low rate of new building. Tenancy arrangements, the nature of electrical installations and other factors are also region-specific. It does appear, however, that the problem of

it would take more than one hundred years to replace all of Europe's deficient wiring

deficient domestic wiring is not confined to Europe. Indeed, Europe scores quite

highly in comparison with less wealthy parts of the world with regard to the standard of initial electrical installation and the degree of adherence to accepted safety standards.

If the number of fire deaths per million people is taken as an indicator of electrical safety, Europe comes out quite well. The rate of fire deaths in the United States is fifteen, while in Japan it is sixteen, per million, both considerably higher than Europe's reading of seven. Domestic electrical safety, as in Europe, should be considered to be a cause for concern in these other wealthy parts of the world.

Paths for Improvement

The approach favoured by the FEEDS programme for improving the situation in

THE RATE OF REPLACEMENT OF EUROPE'S DOMESTIC WIRING SYSTEMS

	Electrical Renovation		Total New Building		Buildings Replaced		Wiring Replacements		
	No. ('000)	% of Stock	No. ('000)	% of Stock	No. ('000)	% of Stock	No. ('000)	% of Stock	% pre-1980
European Union 15	470	0,26%	1861	1,0%	559	0,31%	1029	0,56%	0,75%
Benelux	35	0,30%	108	0,9%	20	0,17%	56	0,47%	0,65%
France	85	0,29%	307	1,0%	86	0,29%	171	0,58%	0,75%
Germany	105	0,25%	356	0,8%	40	0,10%	146	0,35%	0,40%
Italy	55	0,21%	142	0,5%	0	0,00%	55	0,21%	0,23%
Spain	20	0,10%	397	1,9%	241	1,16%	260	1,25%	1,85%
United Kingdom	105	0,41%	181	0,7%	0	0,00%	105	0,41%	0,51%
Other Countries	65	0,25%	369	1,4%	173	0,66%	237	0,91%	1,29%
New Members 10	35	0,14%	265	1,1%	84	0,35%	119	0,49%	0,67%
European Union 25	505	0,24%	2126	1,0%	644	0,31%	1148	0,56%	0,74%

Notes:

"Buildings Replaced" is calculated as "Total New Building" minus 0.75% of the existing stock, this being the trend rate of household increase.

"Wiring Replacements" shows the annual rate of wiring replacement, including entire building replacement, in relation to existing housing.

Rates of replacement pre-1980 are calculated by assuming that all replacement is in that age group.

Source: FEEDS, Eurostat, Metalica Ltd.

Europe is one based primarily on regulation. For new buildings, adequate standards and suitable verification are already largely in place. For existing buildings, the situation is very much worse. The FEEDS programme places priority on regular inspection combined with an enforced correction of defects as the main mechanism for improvement. Providing incentives to upgrade and improving awareness come in as secondary objectives.

Each country of Europe has its own regulatory code of practice covering electrical installations. These codes are based largely on international IEC or regional CENELEC standards. When new codes come in, they usually apply only to new buildings and are not applied retrospectively to existing stock.

... fault correction needs to be enforced to assure that Europe's domestic wiring will be safe

Even where the codes applying to existing buildings are sufficient, there is little or no requirement for periodic inspection, let alone enforced implementation. While CENELEC recommends an inspection every ten years, at present, there is no periodic inspection regime in any of the EU-15 countries. While such a requirement does officially exist in the Czech Republic, Hungary, Poland and Russia, it is not enforced.

Most inspections of domestic electrical installations that do occur in Europe are event-driven. They happen when a building is entirely renovated and needs new permits or at the time of ownership transfer. Clearly, this will not ensure regular or consistent inspection. France and Italy are working towards a legal requirement for periodic inspection, other countries though are still some way behind.

It is only when all buildings are regularly inspected, when the standards applied are consistent between new and existing buildings and fault correction is enforced that we can be assured that

Europe's domestic wiring will be safe. The regulatory process still has a very long way to go to achieve this end.

The Implications for Cable

While the creation of a safer domestic electrical domain will be good for the cable industry, wire is not the only beneficiary. In many instances, the provision of suitable earth leakage protection (with RCDs) and over-current protection (with correctly sized fuses and circuit breakers) provide relatively cheap means of ensuring basic electrical safety. The need for new wires to ensure basic safety really comes into play only where there is clear evidence that existing wires are deficient. This is the case where there is physical deterioration of older wires or symptoms of severe over-loading, with overheating and burn marks being apparent.

Wire takes more of a centre stage where the issue of functionality is considered alongside that of safety. An installation that has less than ideal wire size may be made safe by installing better circuit protection, but a circuit that cuts out when put under stress is hardly fully functional. A system that has insufficient wire length may be intrinsically »safe« within its design limits, but if its functional use then means the use of many adaptors and trailing extension cords because there are too few sockets, higher-grade wiring is clearly needed. Take this alongside the growing requirement for better power quality resulting from the pervasive use of electronic equipment in modern homes we can then see a real need for a greater length of wire in more circuits, improved in both conductor and neutral sizing. Whether this need will be translated into practice remains the question.



COMPANY NEWS IN BRIEF

PROVIDED BY METALICA LTD. UK

Realignment in US Winding Wire:

The US winding wire business of French cable producer **Nexans** is to be sold to **Superior Essex** for € 15 million (US\$ 18.5 million). The figure includes € 6 million (US\$ 7.4 million) in receivables from customers. The **LaGrange**, Kentucky winding wire plant of Nexans will be transferred to Superior Essex and will subsequently be closed. Superior Essex plans to absorb incremental sales within its six existing plants. Nexans will retain ownership of its specialist large-size winding wire facility in **Simcoe**, Canada.

Rationalisations at Belden CDT:

Following the announcement in August of the intention to close its **Essex Junction**, Vermont plant in Canada, the newly merged **Belden CDT** announced further closures on September 12th as part of a previously announced plan to cut costs by US\$ 25 million a year. Coming under the hammer this time were the former Montrose cable operation of CDT in **Auburn**, Mass. and the **Barcel** subsidiary in Irvine, Calif. In Europe, Belden CDT was in discussions relating to the closure of the Skelmersdale plant in England operating under the **Raydex** name and employing 220 people. Equipment and output from the facilities listed for closure is mainly to be transferred to other facilities. Additionally, the company announced its intention to stop production of some lower-margin products in the Netherlands. The actions announced in September were expected to result in a US\$ 11.5 million charge against third quarter accounts.

Cost Cutting at CommScope:

The US cable and connectivity company **CommScope Inc.** has announced a cost-cutting plan at its **Connectivity Solutions Manufacturing Inc.** subsidiary acquired from **Avaya** in January this year. The unit makes LANs cable and networking products. The cuts, which will hit the company's Omaha, Nebraska plant, will incur a cash cost of US\$ 10-15

million but will save US\$ 20-35 million per year.

Developments at General Cable:

The **Marion**, Indiana industrial power cable plant of **General Cable** is now to stay open, saving 172 jobs. Another General Cable facility, the automotive products plant in **Altoona**, Pennsylvania, is to expand, 90 jobs being added to the existing 225 over the next three years.

Invex Gets the Pirelli's Winding Wire Business in Brazil:

Having taken over the winding wire operations of **Pirelli** in Italy and China in 2002, in October this year **Invex** acquired from Pirelli the Brazilian winding wire company **Prodto Patronizados Especiais** (PPE).

Pirelli to Exit Cable?:

According to press reports, Pirelli has appointed **JP Morgan, Lazard, Lehman Brothers** and **Mediobanca** to advise on the potential sale of both its energy and telecom cables business. Pirelli says that it intends to retain a minority stake. Various parties have expressed an interest in the potential sale, including **Investitori Associati**, the ultimate owner of Pirelli's former winding wire business. Pirelli is reported to expect to raise € 1.5-2.0 billion (US\$ 1.9-2.6 billion) from the sale.

Realignment in European Winding Wire:

The United States' **Phelps Dodge Magnet Wire** has formed a partnership with German winding wire producer **Schwering & Hasse Elektrodraht GmbH**. Under the terms of the deal, Phelps Dodge Magnet Wire's sole production facility in **Mureck** Austria, will close, with the loss of 59 jobs. The production equipment will be relocated to Schwering & Hasse facilities in Germany, along with the company's customer and sales network. An expansion at the Schwering & Hasse **Lugde** facility is currently underway. Phelps Dodge decided on this strategic withdrawal from Europe as a result of falling sales and growing

losses in Austria as the plant's major customers moved their production offshore.

NKT Withdraws from Optical Components:

Having failed to find a buyer for **NKT Integration**, a maker of optical components, Denmark's **NKT Holdings** is to cease operations at this loss-making subsidiary. One-off expenses of DKK20 million (US\$ 3.6 million) will be incurred.

Automotive Harness Business in Western Europe:

In October, automotive parts company **Valeo** was discussing with the local Works Council the closure of the company's **Orense** wire harness plant in Spain, which employs 234 people. Production will be transferred within the group. The plant closure issue is a delicate one for Valeo. Some 260 former employees of the **Labastide-Saint-Pierre** cabling plant in France, which closed at the end of 2003, are taking proceedings against the plant owner **Valeo** through an industrial tribunal. The employees claim that there was no economic reason for the redundancies, as Valeo was not in financial difficulty, but had relocated their jobs to Tunisia and Turkey. The much larger French cablemaker **Nexans** has made assurances to employees that certain of its jobs in France will not be relocated to the Czech Republic, as had previously been envisaged.

New Wire Harness Plant in Romania:

The November opening of the third automotive wire harness plant of **Sumitomo Electric** (SEI) in Romania is indicative of the general shift of this business within Europe.

Small Rod Line for Bulgaria:

A € 1 million (US\$ 1.3 million) contract has been signed by **Cablecommerce** of Bulgaria to install a 6,000 tpy **Rautomead** copper wirerod line. Commercial production is expected early in 2005.

Tele-Fonika of Poland Invests:

On the back of a strong financial performance

in 2004 based on booming domestic and export sales, **Tele-Fonika Kable** is planning to invest in a new logistics centre in Ozarów, Poland. It also intends to embark on cable production outside its home base, through a new cable plant in the Ukraine.

Sevkabel of Russia Expands Further: Having recently commenced production at its new € 6.6 million (US\$ 8.2 million) LV/MV power cable facility, **JSC Sevkabel Holding** is investing a further € 6.2 million (US\$ 7.6 million) in an NYM building wire line, the first stage of which is due to commence production in December 2004. The company intends, through extending existing facilities and acquiring new ones, to achieve a 30% share of the Russian cable market by 2007. Output is expected to have nearly doubled in 2004 to reach RUR3 billion (US\$ 100 million), with a further increase in 2005 taking output value to RUR5 billion (US\$ 170 million).

Kazakhstan Invests in Germany: The German wirerod and rolled products company **Mansfelder Kupfer & Messing** (MKM) has been acquired by the Kazakh copper producer **Kazakhmys** from its former owner, **Lamitref** of Belgium. The deal includes the **Hettstedt** wirerod line. In 2003, MKM consumed 209,000 tonnes of copper.

Wirerod Projects in China: Copper producer **Tongdu Copper Industry** plans to install a 150,000 tpy copper wirerod line at an investment cost of RMB 445 million (US\$ 54 million). It also intends to install a 75,000 tpy brass rod facility costing RMB 485 million (US\$ 49 million). Capacity at the **Changzhou Jinyuan Copper** wirerod line in Jiangsu province is to be raised by 50% from 120,000 tpy to 180,000 tpy. A further 10,000 tpy line, with associated insulated cabling facilities is planned by **Hua Yi Copper** in Kunshan, Jiangsu province. The company expects to invest US\$ 10 million in this project.

Developments at Pacific Electric and its Subsidiaries: Thailand's **Charoong Thai Wire & Cable**, is to acquire shares worth Baht 41.8 million (US\$ 1 million) in winding wire producer **Shanghai Yayang Electric Co. Ltd.**, raising its stake to 91.7%. Charoong Thai is a whol-

ly owned subsidiary of **Asia Pacific Wire & Cable** (APWC), itself (until recently) a majority owned subsidiary of **Pacific Electric Wire & Cable** (PEWC) of Taiwan.

New Cable Plant in Vietnam: A new cable plant in Danang has been opened by HCM-City based **Tan Cuong Thanh**, with the capacity to make 40,000 tpy of wire and cable.

Investments by Wonderful Wire: Malaysia's **Wonderful Wire & Cable Bhd** is to buy fellow Malaysian cablemaker **Flexomers Sdn Bhd** for RM 5 million (US\$ 1.3 million), allowing it to make rubber insulated cable. Wonderful Wire also plans to set up a joint venture cable plant in **Doha, Qatar** with local business interests, at an investment cost of RM 30 million (US\$ 7.9 million).

Wire Harness Expansion in the Philippines: The wire harness company **Pilpinas Kyohritsu Inc.**, is to expand output from 0.9 million wiring sets annually to 2.4 million sets, resulting in nearly 1,500 new jobs at the company's plant in **Insosloban, Lipa**. Pilpinas Kyohritsu is 68% owned by **Kyohritsu Hiparts Co. Ltd.**, 29% by **Sumitomo Wiring Systems**, both of Japan, and 5% by local interests.

Sumitomo Invests in Korean Wire Harness Maker: A combined 60% stake in Korean auto harness maker **Kyungahin Industrial** has been acquired by **Sumitomo Electric Industries** (30%) and **Sumitomo Wiring Systems** (30%). Kyungashin employs 900 people and in 2003 achieved revenue of Won 235 billion (US\$ 196 million).

Investment Plans of LG Cable: A huge Won 1.5 trillion (US\$ 1.3 billion) investment by 2012 is proposed by LG Cable as part of the company's new eight-year plan. **LG Cable** intends to strengthen its overseas sales and diversify its business portfolio. Geographical coverage is to be deepened, while product focus in areas such as mobile communications components and rechargeable batteries is to increase, with emphasis being reduced on lower margin wire products.

Investment Plans of Showa Electric: In its seventh mid-term business

plan, which started in FY 2004/05, **Showa Electric Wire & Cable** announced its intention to focus resources on four growing business units while it restructures operations and products in the core metallic wire and cable and optical businesses. The four areas of product focus will be precision devices (including heat rollers), vibration control systems (including seismic isolators), wire harnesses, and compact termination devices for electricity.

Fujikura Changes its Stance in Telecoms: A 20% planned reduction in information and communications sector capacity has been announced by **Fujikura Ltd.** The production equipment is to be discarded and 300 jobs will be either lost or transferred. In a separate move in this sector, Fujikura has announced its intention to form a 50/50 fibre optics joint venture in China with the local telecom equipment company **Fiberhome Telecommunications Technologies Co. Ltd.** This should create one of the top three optical fibre and fibre optic cable suppliers and, for Fujikura, overcome the anti-dumping issues that surround this market in China.

Furukawa Electric Realigns its Industrial Cable Business: The industrial power cable business of **Furukawa Electric Co. Ltd.** in Japan is to be merged with that of its subsidiary, **Furukawa Industrial Cable**. The company, to be called **Furukawa Electric Industrial Electric Wire**, will target annual sales of Yen 20 billion (US\$ 180 million) in FY 2005/06 and an operating profit of Yen 500 million (US\$ 4.5 million) in FY 2006/07.

Furukawa Electric Teams Up With Valeo: The automotive equipment company **Valeo** is to form a 50/50 wiring systems joint venture with **Furukawa Electric** of Japan. The new company, to be called **Valeo Furukawa Wiring Systems**, will be headquartered in France and will have offices in Japan, China and North America.

New Cable Plant in Japan: The **Mitsui Kinzoku** affiliate, robotic cable manufacturer **Yoshinogawa Electric Wire & Cable**, has signed a lease to set up a new 10,000 sq. m. plant in Kagawa prefecture, southwest Japan.

