

The New Zealand LIFT FAX

The New Zealand Lift Fax is produced bi-monthly for the NZ lift industry. Just send your email address to LEC to subscribe.

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05/2008

WHAT'S GOING UP or DOWN THIS MONTH:

JEFF SMELZ SUCUMBS TO EARTHQUAKE DOWNTURN:

Metro Glass Technology has become the winner as local KONE representative in Christchurch; Jeff Smelz, departs with the uncertainty of the local market pressing at present.



Being last on and with this opportunity arising, he sees it as an opportunity to address his ambitions in a slow market, as well ease some of the financial pressure on the branch.

I'm sure Jeff will learn a lot from Metro Glass and more than likely we will see him bring the knowledge

back to the lift industry in the future.

CORY BARTON MOVES TO TAURANGA:

Trading as **ITL** in Christchurch, Cory Barton has become renowned as the go getter when it comes to contracting lift installation.

He has mainly worked with Schindler in the South Island and taken on some of their past employees in **Peter Burrell** and **Stacey Hosfart** from Christchurch, but since the earthquake has headed north to Makaura near Tauranga, and taken on his brother Shaun; also a past Schindler employee in Wellington, to establish his business in the area. He will still keep the boys in Christchurch and run both operations now from Tauranga.

With the number of small lift operations in Tauranga, Cory should be a valuable asset to the area.

EDITORIAL:

LOCAL LIFT INDUSTRY FEELS THE EQ PINCH:

Although a brave face is being presented with the central CBD slowly being made accessible following the significant September, February and June earthquakes in Christchurch, and some CBD building owners are beginning to be able to better assess the full effects of the repeated quakes on their building, it seems is still early days, and so although some lift repair work is underway, many service contracts are on hold and new work is negligible as yet.

The lift companies moved some staff out of town and a few staff have moved along, but generally there is optimism that over the coming months existing jobs will come back on line as insurance is paid out, and more repairs will be undertaken hopefully followed by new orders. It is this expected gradual increase that could evolve into high demand in 2012-13 that the industry is trying to rationalise at present, and with the EQC dribbling out payments and private insurers seemingly answerable to no one and content to sit back and consider all things in their best interests, it is the local people who are taking the brunt of the consequences at present.

I have averaged about a third of normal turnover the past 11 months, and so it's hurting, but then again I am also optimistic if we can survive 2011, 2012 should see a steady return to normal and even increased demand.

On the other hand, it is interesting how insurers seem only obliged to the mortgage lenders by directing all payouts involving a mortgage directly to the Banks, and you become the distant 3rd party in any arrangement. It just goes to show how you may have dedicatedly paid your mortgage and insurance premiums on time over the past 20 or more years, but just because you are involved in an earthquake and make a claim for what you have rightly paid for over all those years, these institutions only interest seems, is that their interests are first served. In fact seemingly the only formal recognition you receive that you exist is in response to your calls, whereby you are immediately asked for another piece of identity. Ed.

GREG MOODY TRANSFERS TO WELLINGTON:



Another loss to Christchurch is the move of Greg Moody of Schindler to take up managing their lift modernisation in Wellington branch. This is a great asset for Manager Robert Hallsmith of Wellington Branch as Greg comes with a wide hands-on installation and modernization experience.

Greg is still keeping his home in Christchurch which has survived the earthquakes without damage, and is likely to settle close to downtown Wellington after spending many years commuting daily to Woodend north of Christchurch.

DIDN'T THE AUSSIES DO WELL IN THE TRI-NATIONS !!!

BLACKCESS HANDOVER TO PANDECT:

Max Black from Feilding has been the lone manufacturer of lift equipment in the area for many years, producing along with his general engineering solutions, his simple low rise water hydraulic access platform to service the disabled community. And so it was probably inevitable with Max's time in life, but still sad to see Pandect take up the business and shut it down. On the bright side, Hyde Engineering and **Graeme Ellis** who had worked with Max many years back, has employed **David Anderson** and **Don Vincent**; also past Black Engineering employees to join him, so watch this space!



CORNER HANDS DOWN ACCIDENT REPORT:

The final act has been played out in the accident investigation into the death of our peer Dave Shaw, with the handing down of the Coroners report on the 6th of September 2011, just over 2 years since Dave's tragic accident.

Whether or not this prolonged exercise will decrease the risk of a similar happening occurring again is up to us, because in the end it is only our actions that will bring about any change, sadly not the contents of this report.

(see last issue NZLfax 115 on my website for accident details & Coroners Findings - 6th September 2011 Issue 115a in index)

MELBOURNE LIFT ACCIDENT:

In June this year a 39 year old lift technician, **Simon Dimech**, employed at KONE, was working on a lift at the Crowne Casino on the Yarra in Melbourne, reportedly adjusting landing indicators, when somehow while stepping out of the lift he ended up with his head caught between the landing sill and the roof of the car after it unexpectedly moved down, resulting in severe head and neck injuries before he fell back into the car.

It has been reported that even with a jaw broken into many pieces, both eye sockets crushed and a broken vertebrae, he was still trying to stand up. A paramedic says Simon was extremely lucky he didn't sever any arteries. He underwent a 6 hour operation and was in intensive care for extended operations over a long recovery period.

Along with the trauma of having his skull crushed, and surgeons having to put his face back together like a jigsaw, his right facial nerve was also severed, and Simon's sight and hearing in one ear has been damaged.



Simon's wife Rachel and instant family of quads, Jake, Clayton, Emily & Brooke are just glad their Dad, although still screwed together at present, is still their DAD!

All Simon wanted was to be back with his family, and said; "We want to be able to sit together, all six of us, on the loungeroom floor and say, 'This isus!'."

As you can see, Simon is now home from hospital and back with his young family and wife Rachel, but I understand there is still a fair way to go, with a few operations in front of him yet.

Simon is a father of quads, and our thoughts go out to him from new Zealand, his immediate family, and all those who work with Simon at KONE in the Melbourne lift industry.

RESTRICTED BUILDING WORK:

"Oh where oh where is the Restricted Building Work gone? Oh where oh where can it be?" Laments

Rosemary Killip in her Building Networks blog.

Rosemary goes on to inform us that - we need to know what it is so we know what



LBP's (Licensed Building Practitioners) will be required to do. Council and business systems will need time to adapt to these requirements. 1 March 2012 is not that far away she reiterates!

This is when the Government's apparition the DBH will require all building inspection to supposedly be carried out by a LBP, but their track record is not great, as since 2004 when this overhaul was first mandated following the Building Act review, this date has been extended 3 times, and other than the investing of carpenters, and other non-specified system trades, and ensuring the professional institutions are assured an income by appointing them LBP's by default, little has been done to identify experienced specified system inspectors as LBP's.

It is in this area that the pre 2004 Building Act independent Building Certifier roamed, that was until his scapegoat demise as the leaky building bunny justified the phoenix like LBP to emerge from the ashes, oozing quick fix solutions and risk free insurance covered remedies for all!

But the reality is, that imposed insurance schemes, institutional risk assessments and knighting professionals in the building industry, will not ensure that workface learned experience necessary for competent inspection in the building industry will result.

Did we not learn from the Building Certifier fiasco, that insurance schemes and one-stop-shops no matter how high the overhead and flashy they look, do not substitute workface experience, peer respect, and individual responsibility.

These critical attributes need to be incorporated into any selection and implementation process of independent LBP inspectors, and the competitive market is not the place to source them if excellence is the aim.

It is time to put aside the grandiose schemes by firstly identifying the market need and advertise it, and then trust the building industry to identify its inspectors. And rather than just heap high overheads and insurances on them, ensure their role is financially viable, and not just subjected to the market, but by being financed through the building levy process. It is only then you may attract the people you need to achieve good governance of the building industry through employing independent inspection as the vehicle.

SMALL LIFT CONTROL SYSTEM COMPLIANCE:

Over my working lifetime beginning as an electrical apprentice in the lift industry, I like many in this industry have seen enormous change in lift control systems, but have the fail safe design lessons evolved in the lift industry been retained in the trend toward simpler, more flexible PLC and microprocessor based controlled systems.

Lifts differ from industrial controls in that they carry people, and like aircraft, weaknesses in circuit design may not be so evident and may require additional onboard safe processes and tests to retain industry fail-safe standards, as they not only can put users at risk, but those who maintain the equipment.

The **Abode Elevator** controller is a very neat highly designed dedicated microprocessor based controller that uses serial connection for all its field inputs, and output I/F's to drive pump motors and valves, and includes emergency battery backup for power loss release of passengers.



ABODE Water Hydraulic Microprocessor based Controller.

There is a technical sophistication that seems well beyond what needs to be achieved as a simple 2 stop controller, but by populating the main board it could be easily expanded up to serving 6 levels, and being software based, easily programmed to handle any client preferred features such as security or RFID hands-free call initiation.

As a lift inspector, my main concern is the integrity of the fail safe design, and whether or not the designer had considered the industry standard that no single component failure or maladjustment could cause an unsafe operation. In the past this was attained through use of specifically designed safety switches in door latches, car gate switches, stop switches and limits, that physically inhibited a latch opening if bridging contacts didn't part, or physically separated the bridge from the terminal posts if needing to be forced.

Similarly, safety circuits were designed to be physically in series with the main drive controls so that interruption ensured the drive was deactivated. Electro-mechanical switches were designed on the principle that any contact electrically disconnected before it mechanically unlatched, and consequently, mechanically made before the electrical circuit was completed.

Of course with solid state components in control systems, these electro-mechanical fail-safe techniques are not necessarily inbuilt in solid-state switches, but still need to be achieved in the design of any control system.



Smart Landing Station

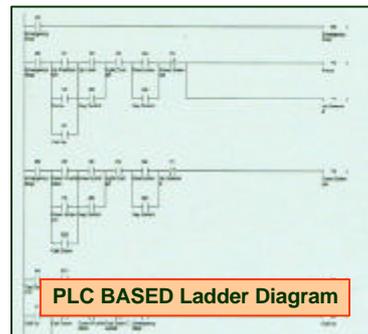
With programmable PLC's and smart relays being adopted into some present day lift control systems, designers find it easier to sometimes bring all individual field switches or sensors back to the controller termination point and either series the safety field switches into a common safety input, or terminate them as individual inputs, and 'AND' their logic function in the controller ladder program.



PLC Based Domestic Lift Controller

At the lift drive end of the system, either through motor or control valve operation, some employ the power of these controllers through their logic controlled output I/F, to directly control the UP motor or DOWN valve drive.

Now these all work, but the question arising is, 'has the designer met the fail-safe lift industry control system safe practices', or can an unstable solid-state component like a logic gate result in a key safety function exposing users to unexpected harm.



PLC BASED Ladder Diagram

The advantage of solid state control of course is the ease of programming smartness into the software, or employing smart process monitoring either through monitoring firmware or software that can detect irregularity in set known processes, and diagnose or inhibit functions operating outside safe parameters every operating cycle.

Where this is inbuilt into the controller, we can provide the same evolved safe design techniques into outwardly simple controllers, the critical step is to fully understand these risks, and be able to demonstrate these inbuilt safety features to the lift inspector during the D2 Consent inspection.

Smart solid state controls are therefore only as SMART as the control designer!

INPUTS	
X0	Emergency Stop
X1	Lip Position
X2	Top Limit
X3	Light Curtains
X4	Top Door Limit
X5	Down Position
X6	Bottom Limit
X7	Call up
X20	Call Down
X21	Bottom Door Lock
X22	Service Key Switch
X23	Spare
X24	Spare
X25	Spare
X26	Spare
X27	Spare
OUTPUTS	
Y0	Hydraulic Pump
Y1	Up Solenoid
Y2	Down Solenoid
Y3	Light
Y4	Top Door Open
Y5	Spare
Y6	Spare
Y7	Spare
Y20	Bottom door open
Y21	Spare
Y22	Top door lock
Y23	Bottom door lock
Y24	Spare
Y25	Spare
Y26	Spare
Y27	Spare

PLC I/O Table

WAS FAIL SAFE CONTROL DESIGN CONSIDERED IN YOUR NEW LIFT CONTROL SYSTEM ?

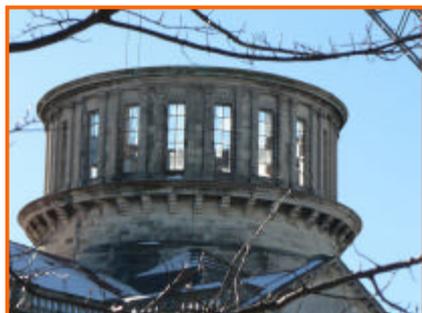
CHRISTCHURCH NEEDS QUALITY LIFT INSPECTION:

20 years of the Building Act has seen the continued demise of a consistent, competent testing and inspection regime of all new D2 installation in New Zealand.



But now we have an added dilemma as the wasteland created in downtown Christchurch by the ravages of the continuing September 2010 earthquakes in this region, and the demolishing of hundreds of buildings, that at some time in the not to distant future, will need rebuilding.

The question is – will the present Consent process under D2, which still seem somewhat oblivious to what safe lift installation entails, be able to provide an inspection process that is competent and consistent in the Christchurch rebuild situation. I suspect not, unless significant rebuilding of a competent inspectorate and consistent processes of D2 Consent solutions are immediately instigated.



To meet market demand, it is more than likely that increasing overseas suppliers unfamiliar with the NZ market building processes and local lift industry practices, will be

keen to enter this market, along with development entrepreneurs and building owners keen to reestablish their income streams if they are to remain viable in the Christchurch market.

It is difficult to conceive, that what the Building Act under the BIA and DBH hasn't achieved in 20 years, will suddenly provide an environment able to efficiently govern the immense demands that is going to be placed on its processes from all parties in these coming years.

Is the Licensed Building Practitioner scheme up to achieving this? Or should the private sector be the vehicle to provide a suitable solution? Without sound direction, or at least the problem being accepted by Government, 20 years of not encouraging the lift industry to participate in the solution, may see 'leaky lifts' on a future Government agenda to be resolved!

NEW DRAFT LOW-RISE LIFT STANDARD PROPOSED:

In August 2011 a new draft low-rise lift standard **DZ4334/V.410** was produced by Standards NZ in conjunction with:-

CCS Disability Action
DBH
Disabled Persons Assembly
Institute of Professional Engineers
Ministry of Education
Ministry of health
Royal NZ Foundation for the Blind.
And last but not least –
The Low Rise Elevation Suppliers Association:



Although I ended up with around 6 pages of comment, overall, if others in the industry participate with similar feedback, the organising committee should end up with a reasonably useful document for this area of the market in NZ.



We have endured the Under One HP code adopted and designated under the Building Act seemingly for eons as D2/AS2, and as long as SNZ incorporate a section for Dumb

Waiters/Service Lifts into this proposed standard, and the DBH replace the existing D2/AS2 with this document, we will nearly provide all mainstream lift solutions with Acceptable Solutions in NZ.

Hopefully the DBH will also see the error of their ways in not adopting **NZS 5270:2005**; wrongly termed Cable Cars for Private Residences; change its title to **Inclined Lifts**, and designate it as another Acceptable Solution; either as **D2 AS2-2** or separate it as **D2-AS4**. And while tidying things up, they should remove its application to only private residences, and thereby remove the contradiction of requiring a private D2 solution being on a Building Compliance schedule. The difference between Commercial and Domestic can then be re-established in the market.



Public comment can still be made on the Draft up until the **7th of October 2011**. If you need a copy of the Draft and submission document, just email LEC.

Of interest, none of the applicable parts of the Australian Standard AS1735 we referenced in compiling the document.

Standards NZ can be contacted at **(04) 498 5990**, or visit their website at www.standards.co.nz