

September 2005

In compliance with the new *Engineering Professions Act (No. 46 of 2000)* requirements, ILIASA endeavours to assist her members in keeping up on technological developments that impact on their registration. ILIASA most earnestly support ECSA in their search for *professional service excellence and pursuit of continued professional development*'. EDUCOM keeps you up to date on ECSA and industry related news.

JOHAN MINNIE

We regret to advise of the untimely passing of a revered friend and colleague following a fatal accident on a hoist inspection on Friday 19th August. At the time of going to print, no details are as yet available. Our sincere sympathy is imparted to his bereaved family.

Chairman, Excom and members of ILIASA

2005 LIFT INSPECTORS' REGULATION COURSE

The most recent course was presented from 27th June to 1st July with the examination featured on 16th July. From day one I new that we could expect high results in the examination and it was in fact so. 23 candidates attended the first day of the course, but two decided to give it a miss this time around. 23 Candidates, which included two re-writes, wrote the examination on 16th July.

This examination had a 100% pass rate with 12 distinctions. Over the past 19 examinations, this was only the third time that a 100% pass rate was achieved. The November exam in 1996 also had a 100% pass rate with 18 distinctions. Over the years the attendance of this course had declined and I mention some statistics for interest sake:

- The course started in 1995. There was only one course that year and 74 candidates wrote the exam in November, mostly the doyens of the Lift Industry
- In 1996 there were three courses and 194 candidates wrote during three different exam sittings that year
- From 1997 to 2002 there were two courses per year with 70 candidates in the first year, declining to only 23 in 2002
- From 2003 to date there was only one course held per year. In 2003 as little as 7 candidates attended the course, of which two were re-writes
- During 2004 and 2005 we were back to 23 candidates per year.

Between 1995 to date, a total of 525 candidates attended the courses, with a total of 19 examinations to date. 585 candidates (inclusive of re-writes) sat during these examinations. Of these 479 candidates passed, of which 107 passed with distinction.

We have come to realize that the expense incurred to send candidates from distant country venues is considerable, but we are endeavouring to shortly afford them an equal opportunity to attend the course at an affordable cost.

Should there be enough interest in the main coastal centers of Cape Town and Durban, and provided that we get the support of the major lift companies situated there, we will arrange courses in these areas at a tremendous cost saving for the relevant interested parties since there will be little or no accommodation costs involved. It must however be borne in mind that it is not cost effective for the Tshwane University of Technology (TUT) to run the course for less than 8 candidates, so please advertise the possibility of this course to attract the expected target population of candidates. Contact ILIASA for further details.

Willem du Toit Pr Techni Eng



LIFT MODIFICATIONS

There have recently been many and varied arguments as to what constitutes a modernization and what regulatory statutes are to be applied. We are all aware that previous to the new regulatory approach, prior current-running installations were deemed to comply. We also discussed *ad nauseum* on the definitions of *repair* versus *modification*. If you still have a problem contact ILIASA.

Following the several extensive meetings to finalize the latest OHSAct Draft Amendment Bill, we became very closely associated with the nuts and bolts of lift upgrades *per sé*. Willem du Toit was forced to study these in the minutest detail has he had to lecture on them a scant few weeks later. We therefore requested Willem to define in layman's terminology what the Amendment Bill will in future require for compliance on every modernization. His mandate was to focus on the RLI incumbent who would have to inspect these modernizations for compliance in future. Willem came up with the following ...

1. **The OHS Act of 1 May 1994** states that all lifts, escalators or passenger conveyors installed before this date **shall be deemed to comply** if they complied with the regulations which were in force at the time such lift, escalator or passenger conveyor was installed.

The new *Draft Act* states that after a modification (upgrade) any lift, escalator or passenger conveyor **shall** comply with the Act and specifications. Major property owners (users) already complied with this requirement when they ordered upgrades. However, to avoid confusion, the definition in the OHS Act is very clear: *“Modification means any alteration to a lift, escalator or passenger conveyor affecting the control or safety thereof”*. Annex E of EN81-1 lists all the areas considered as *“important modifications”*.

We state again that the EN81 code is based on real *incidents and accidents*, which occurred in the past around the world and none of us, responsible lift inspectors, can argue against the necessity or not of any of these regulative requirements in place as a standard. It is not possible to cover the entire EN81-1 in one Educom editorial, therefore let us look at some of the **electrical** areas which are deemed to comply on old lifts, but are requirements for new lifts which should therefore be addressed under any major **modification** as defined above ...

2. **Electrical Requirements - switches (safety devices)**

(i) **An Electric safety device shall:**

- Cause the lift to stop immediately and prevent starting
- Shall not be connected in parallel to any other device
- The signal shall not be delayed in any way
- Shall consist of one or two safety contacts of which ...
 - The operation of safety contacts shall be positive separation of the contacts even if they are welded together
 - Positive opening is achieved when there is no resilient members (springs) between the moving parts
 - Failure of components shall not lead to short circuits
 - Abrasion of conductive materials shall not lead to short circuits

From the above it is clear that one cannot use *inductors, magnetic switches* or switches with *flexible levers* as safety devices.

- (ii) **Lighting:** The lift room lighting shall be 300 lux at floor level. (OHS Act, environmental)
- (iii) **Main switch:** There shall be a lockable main switch at the entrance to the lift machinery room
- (iv) **Wiring:** Conductors shall be installed in ducting, trunking or similar fittings
- (v) **Emergency operation:** If the effort to raise the full load car up is less than 400 N, manual means can be provided, but if the effort is more than 400 N, a means of electrical operation must be provided

- (vi) **Motor run-time limiter:** Traction lifts shall have a run time limiter to detect when the motor turns while the lift does not moveswitching it off instantly
- (vii) **Emergency alarm devices:** Two way communication shall be provided ...
 - Between the car and the rescue service
 - Between the car and the lift room if the travel exceeds 30 m
- (viii) **Governor:** The governor shall be provided with an over-speed switch (**safety device**)
- (ix) **Lighting of the well:** Well lighting shall be 50 lux, 1,0m above the car roof and in pit floor. Switching shall be *two-way*, from the lift room *as well* as from the pit. The switch in the pit shall be reachable from the landing
- (x) **Governor rope:** There shall be a safety device detecting the breaking or excessive slack of the governor rope (**safety device - on pit diverter sheave**)
- (xi) **Buffers:** Energy dissipation buffers shall be fitted with switches to prove the extended position (**safety device - fitted on buffers**)
- (xii) **Pit stop switch:** Shall be accessible from both the landing as well as from the pit floor
- (xiii) **Emergency release:** Where there is a risk (pit & top of car) of a technician been trapped, an alarm device must be installed
- (xiv) **Car door lock:** If the car front is more than 0.15 m from the well wall, the car door shall be locked
- (xv) **Landing door lock:** Shall be a **safety device** and shall not open by gravity if any component of the lock fails. Swing and bi-parting doors shall have extra contacts to prove the door is closed *before* it is locked
- (xvi) **Slack rope device:** For positive drive lifts (**safety device - fitted at rope hitching point**)
- (xvii) **Load control:** The lift shall be fitted with an overload device, which shall prevent any further operations of the lift (in the event of an overload)
- (xviii) **Emergency light:** There shall be an emergency light and alarm unit fitted on the lift car (battery-powered)
- (xix) **Landing identification:** Position indicators shall be provided in the lift car

- (xx) **Electrical identification:** All contactors, relays, fuses and connecting strips shall be *clearly identified* in accordance with the lift wiring diagram
- (xxi) **Inspection control:** There shall be an inspection control station on top of the lift car
- (xxii) **Signals:** Direction arrows must be fitted on all the landings, with arrival gongs also recommended.

MOST IMPORTANT !!!

- ◇ **Do not forget the NOTICES**, explaining the *written notices* as well as the *markings* on the buttons, key-switches, Braille etc.,
- ◇ **the REGISTER ...** the technical dossier with the drawings, diagrams, record book, rope certificate, deputation, etc.,
- ◇ **and THE INSTRUCTION MANUAL.**
- ◇ **Remember that all tests shall be done in accordance with the explanations in Annex 'E' of EN81-1.** You will still complete the new Comprehensive Reports (Annex A & B) that we drew up for you recently
- ◇ **Remember that the 'Annex A'** (for example with a modernization) *can either be completed in full by an RLI, or partially by the lift company field engineer/tester* who completes all the manufacturer's commissioning data to specification, *provided that an RLI then completes and verifies the unit as safe and compliant to the Act.*

Having focused above on the *electrical requirements* embodied within a modernization inspection, we will focus on the *mechanical requirements* in the next issue of *Educom*.

Willem du Toit & Theo Kleinhans



NEXT LIFT INSPECTORS COURSE
TSHWANE UNIVERSITY of TECHNOLOGY

The University has advised us of the following dates for the next course to be run in Pretoria is scheduled for February 2006 unless sufficient applications are received to make an extra course in October viable. Willem du Toit has already offered to run a course in a coastal region provided that at least 6 or 7 applications are received. Please contact Willem, ILIASA or Mrs Mary Smith directly at the university for further details ...

- **Telephone: (012) 318-4730**
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RLI LIFT SAFETY COMPLIANCE

We have all heard *ad nauseum* that safety is *built* in and cannot be *inspected* into a product or lift equipment, yet it has been proven irrefutably over the past 20 to 30 years that safety can be *tested* for on lift equipment. By test we do not imply the proliferation of safety awareness campaigns. We explicitly mean the practices employed by lift technical personnel and the in-built safety features on lifts.

Educom does not want to regurgitate in-house safety messages that compliment safety in the workplace, but rather advocate an emotional appeal to all our RLI members to only employ safety standards of the highest order. It is only when one gets involved in litigation cases that you realize the folly that causes most of the accidents, leading to heart-ache and exorbitant medical and legal costs. Mostly the accidents developed from taking shortcuts and trying to beat the system.

Forewarned is forearmed! There is no real forward vision of a dangerous situation. *Before you know it, it is too late*, and you have become a statistic. The safety program currently under way at Otis to place awareness notices on all dangerous equipment, and to enforce staff to wear safety equipment and practice *safety* with every task, is a point in case. *The cost of one fatality far outweighs all these preventative action costs.*

DO YOU ABIDE BY THE GENERIC TENETS OF SAFE WORKING PRACTICES?



WAT LÊ AGTER ILIASA SE SUKSES?

Dit sou seker nie oordrewe wees om 2005 te beskryf as 'n akademiese voortreflike jaar vir ILIASA nie. ILIASA het met sy verklaarde fokusareas uitnemend presteer deur hom as doelgerigte hyser inspeksie vereniging opnuut te bewys. Die indrukwekkende prestasies vanjaar deur van ons top lede behaal is 'n bewys vir die jongeres van hoe dinge gedoen moet word, waarvan bewys in die afgelope paar *Educoms* gereflikteer is.

Ons kan onmoontlik in hierdie beperkte ruimte reg laat geskied aan die besondere bydrae wat hierdie lede in die hyserbedryf maak nie. Onder ander dien die meeste van die volgende op genoemde komitees van SABS, ECSA, DoL en ILIASA, naamlik Schalk van der Merwe, Willem du Toit, Theo Kleinhans, Clarence Thompson, Ben Peyper, Billy Clifton, Paul Allen, Budie Cerone,..... Ons visiestelling van aktiewe rolspeeling het 'n realiteit geword.

Dit behoort vir ons almal belangriker te wees om te vra wat lê agter al die innoverende werk en deurbrake wat hierdie manne bewerkstellig het. Waarom doen hulle dit, veral omdat dit *pro bona* gedoen word. Ons insiens rus dit op die drie stewige pilare van *kundigheid, toewyding* en die *wengees* van hierdie lede. Niemand kan dit betwyfel dat hierdie manne oor die voorste kundigheid beskik en dat hulle dit gebruik tot voordeel van die

hele hysernywerheid. Voeg hierby die strategiese vennootskappe wat gesluit is met Paul Roux van ECSA, Jake Malatse en Hlaks Mohlakola van DoL, en Lijuan Wang van SABS en die hele prentjie realiseer duidelik voor u oë. Die ander faset is die toewyding van hierdie lede om week na week voort te streef met hul doelstellings ongeag die feit dat hulle 'n eie beroep uitoefen en 'n lewe probeer maak. Dit vra 'n besondere lojaliteit om dit te volhou in die hedendaagse bestuursmieu. Bovendien moet hulle nou nog ekstra tyd inruim om die nuutgevonde doelstellings van ILIASA se nuwe driejaarsplan in werking te stel. Ben Peyper en sy Aksiekomitee sal hare op hul tande moet hê om al die doelstellings te bereik, veral binne die wurggreep van finansiële kompromie waarin ons verkeer. Ons sal maar net meer innoverend moet wees om dit met minder hulpbronne te bewerkstellig. Maar, dat hulle hierdie brandnetel kaalhand gaan aanpak is gewis.

Baie van die nuwe doelstellings is nog in die begin-stadia, maar verg u besondere hulp daarmee vir die korrekte posisionering van elke doel in die opkomende jaar. Moenie da tons moet soebaat vir u samewerking nie. Twyfel geensins in ons paraatheid nie. 'By hook or by crook' sal hierdie kernbehoefes aangepak moet word. *Ex unitate vires*, en samewerking sal triomfeer. Ons sê by voorbaat dankie vir u lojale ondersteuning.



ILIASA OBJECTIVES 2005 TO 2007

Competition, globalization, economic uncertainties, demanding Government policies ... these are forcing us as ILIASA Excom to rethink our business strategies, as communicated to you very recently in our Educom Communique. The newly hatched objectives will take us into 2007 before positive progress will be realized. How will these new directives change the landscape on lift inspections? What impact will the proposed new accreditations have on RLI's?

ILIASA understands only too well that the proposed accreditations are based on hard rigorous audits by international experts in the overseas lift engineering field and not on personally biased perceptions, but are we not becoming over-regulative? The process of international audits overseas, mostly by the insurance associations, is the only objective guarantee that Europe, USA and UK appear to have that safety and regulatory compliance is assured on their hundreds of thousands of lifts and escalators. Countries like Switzerland, France and Germany have more lifts in their cities that the whole of the RSA. The economies of scale therefore apply positively in these countries. Remember that the RSA is a Third World Country with a Third World approach.

According to the discussions at ECSA's Central Registration Committee, more and more pressure is being put on ECSA to incorporate the development of *leadership, entrepreneurship and mentorship*. Bear in mind that ECSA is primarily a registration and control body over engineering professionals, not a business faculty.

However, with this in mind, ILIASA must of necessity now focus more on the leadership skills of our members, in order to equip them as mentors for developing the technical skills of previously

disadvantaged persons of colour. Black economic Empowerment will exponentially put more pressure on ECSA and ILIASA for enforced compliance. Public Affairs Minister Stella Scigau who is now getting increasingly involved in ECSA's affairs, states this as a requirement for growing our economy.

The above is going to place even more pressure on the ILIASA Excom and our fiscal resources. We foresee fulltime executives employed by ILIASA within the next two to three years, if we are to meet Governments challenges. In the interim we need your support like never before. You must get positively involved in your regional committee's projects which will cascade down from the ILIASA Excom.

Budie Cerone has already pulled out of the Excom workings and Jan van Wyk has given notice that this is his last year in office as LIRC Chairman. Schalk, Willem and Theo have likewise given notice of throwing in the towel within the next two years. The ILIASA Excom and regional committees must of necessity become more homogeneous in their approach, which means **YOU**, if we are to have any chance of success.



ILIASA CHAIRMAN'S ANNUAL REPORT JUNE 2005

Dear colleague's, The hard work put in by all the Excom members during the past year finally bore fruit. During the mentioned year various meetings were held with Dol regarding the proposed new Draft amendments to the Regulations LER. It now appears that the document will be handed to the Advisory council (somewhere in August, hopefully) for final approval and publication.

It is commonly known that many inspectors are already informing their clients that the inspections are to be done on a *two yearly cycle*. This is perhaps not technically correct as the inspections are still legally only on a three year cycle. However...it is to the advantage of the owners and users to have the inspections done on a two year cycle.

As a second focus, the actual functions that are performed by inspectors in the various disciplines should not be limited to where public health and safety is directly affected. There should be some focus on quality of maintenance and "good housekeeping". Cleanliness is of prime importance for normal function and operation of any equipment.

As part of our ongoing effort to determine and improve the quality of service offered by our members it is therefore important that we canvas and get as many inspectors to join ILIASA as possible. The new ILIASA Excom will keep all members informed of new developments during this year. We are planning more workshops and meetings this year with all the role players to enable all members to know what is happening in the industry.

A major focus will be on HDI (historically disadvantageded individuals) to join ILIASA and become part of our association. I would also like to make use of this opportunity to welcome the newly elected Excom members (local and regional) and wish them all the best in their efforts to improve the image of ILIASA.

Then to Dr Theo Kleinhans who puts in an enormous amount of work into EDUCOM, we cannot thank him more for this.....as you have all noticed, this document keeps you ahead of all the activities in the industry.

We would also like to thank “Oom” Schalk for his efforts up to now with the Library that he is getting together.....please guys ...he really needs your support as much as Dr T needs your inputs for the Educom.

In conclusion I would like to thank everybody for their loyal support and words of encouragement for the new Excom for 2005-6, we will endeavour to do our utmost to make ILIASA an association that we can all be really proud of.

Ben Peyper National Executive Chairman



LATEST ON DRAFT AMENDMENT BILL

Clarence Thompson had a meeting with Hlaks Monyaki on Monday 15th August to discuss *inter alia*, the latest scenario of lift legislation. Unfortunately Ben Peyper could not attend as he had a pressing emergency in Natal, causing him to fly down at the eleventh hour.

As to the previously advised gazettal date of the Bill, Hlaks advised that this may now move back well into 2006. He would not expound on the reasons. Considering the input given by the ILIASA members, working overtime as it were to get the Bill to an acceptable level for presentation to the honourable Minister, we feel absolutely let down.

All sorts of technical and administrative anomalies were raised such as the travel for a Homelift being restricted to 4 meters when there is no restriction in Europe, etc. Not having received a report in writing, we cannot comment finitely on DoL's handling of the situation. We will keep you posted.

ILIASA VALUES & STANDARDS

Sitting in B&B rooms whilst away on country inspection trips, one seems to be more relaxed mindfully after a hard days graft. Sitting in front of your laptop then tends to bring out thought and ideas that perhaps elude you in more restful hours at home, as for example what our REAL values and standards are ...

- *RLI's must perform their duties to the highest of standards, of integrity and of ethics*
- *RLI's should have zero tolerance on the safety of lifts and escalators, and it is this standard that we should consistently strive for*
- *RLI's regard the protection of their portfolio clients' lift and escalator assets through thorough inspection practices as a top priority*
- *RLI's honour their social and environmental responsibilities as complimentary and mutually reinforcing to their ECSA Code of practice*
- *RLI's consistently strive to contribute to the wellbeing of the communities in which they serve and operate by testing and inspecting the lifts and escalators at zero tolerance for the safety of the public users*
- *ILIASA is committed to the principles of sustainable development of our members within a framework that favours young and upcoming inspectors of colour*
- *ILIASA members will comply to the Code of Practice and ethics within the applicable regulations and standards and will not sanction any form of corrupt or anti-competitive practices*
- *ILIASA seeks mutual benefits in our relationships with our customers, the lift service providers and all allied industry partners*

Will all ILIASA members please forward their particular *values & standards* so that we can add them to the above list in order to complete this project with a national input to the total benefit of all our members.



EDUCOM COMMUNICATIONS

We invite *any* reader of EDUCOM to contact the Editor with any question that they may have, reply to any external edition or any newsworthy item *that can enrich our CPD*. This is your association's educational newsletter.

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The Editor