SNEL in The Netherlands

Presentation by Ko Legez representing VLR The Netherlands
Using an existing lift in The Netherlands

Are you safe??
SNEL is **not** included in national regulation in The Netherlands

- The general perception in the Netherlands is that lifts are a very safe way of transportation
- Injuries and accidents for users are however **not** well monitored and quantified
- As lift industry we are responsible to relate accidents to specific risks and than effectively address these risks
- Investigations on workers accidents are fully underway and with good data sharing and action plans
Relevant topics in relation to SNEL:

• Can we quantify that older units (with lesser implementation of the 74 risks) are less safe?
• There is a gradual development of codes (amendments, specific codes like EN81-28) and therefore an increased safety level of lifts
• Modernization of units is a substantial business however the oldest units are not automatically the first to be modernized (not fully age related)
• Linking the huge diversity in unit status (related to SNEL identified risks) to accidents is very challenging
Most older units already comply to a portion of the identified 74 risks of SNEL (EN81-80)

Previous code
NEN1081

Several versions
EN81-1/2

Modernization

VOK checklist
(Warenwet besluit liften)

Voice link
EN81-28
<table>
<thead>
<tr>
<th>Item</th>
<th>2011 / 2012</th>
<th>2012 / 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units without car doors</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>No variable speed control on traction lifts</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>No voice link system</td>
<td>24%</td>
<td>23%</td>
</tr>
<tr>
<td>No door protection on automatic doors</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Emergency lighting in car (find alarm button)</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>Traction lift without safety gear</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

An estimated 25% of the complete portfolio in The Netherlands does not comply to the most essential recommendations of SNEL.
But what about **SAFETY**?

- So far there is no central entity that is willing and able to collect and analyze data on accidents.
- Parties that potentially own information reluctant to share information (legal implications)
  - Lift companies – Building corporations – Hospitals – Consultants
- Who wants to know? Who are the stakeholders / owners?

VLR decided to invest in an independent investigation by a professional independent Research organization:
Definitions and scope

• Limit the investigation to Person lifts only (so no lifts under machine directive or special lifts)
• Users risk = number of incidents by users / usage intensity
• Differentiate between units installed before and after 1997 to keep information manageable
• An accident can be: Fall/trip – pinching – injury by sharp objects – bumping against parts of the lift – aggression within or near the lift – loss of consciousness within or near the lift – entrapment within the lifts (doors that do not open)
• Access multiple reliable sources and consolidate data
Sources for information

• Injury information system [LIS] at 12 hospitals with an emergency help service

• Actual feedback of a user control group of 5416 persons via an internet survey. The control group represents all persons of 15 and older; except those living in care or nursing homes (13,6 million people)

• A group of 3149 persons that kept a log book over a period of one week and a detailed survey about incidents *) over the last 5 years

*) As far as possible a distinction was made between incidents at units built before or after 1997 via the check sheet and the BAG (Basic Registration Addresses and buildings)
Overall Usage and incidents

• 90% of our population uses lifts; 80% of children until the age of 15 uses lifts.
• 18% of our population uses lifts on a daily basis
• 3 billion “person rides”: 226 per person per year
• 8% of the population has been involved in at least one incident in the last 5 years (self, others and pets)
  – 5% was personally involved
• Average per year: 207.600 incidents
  • 43.000 accidents (per year)
  • 3.000 needed at least first aid
Breakdown users incidents > users accidents (total portfolio)

207,000 incidents per year
- accident: 74%
- human aggression: 1%
- call backs: 4%
- other: 21%

43,000 accidents per year
- entrapment doors: 44%
- entrapment object within lift: 11%
- Falls, slips and trips lift movement related: 36%
- Cutting, moving into lift parts: 9%
Number of accidents split in before and after 1997

Accidents (43,000 per year)

- <’97 ("OLD") 37%
- ≥’97 ("NEW") 51%
- unknown 13%

Usage (3 billion lift-person movements)

- <’97 ("OLD") 41%
- ≥’97 ("NEW") 43%
- unknown 16%

Accidents bandwidth

- ≥’95 ("NEW")
- <’95 ("OLD")
The first conclusions from the report
(“work under construction”)

• The risk for an accident on a unit installed before ‘97 is on average twice the risk of an accident on a unit installed after ‘97
• There is a certain bandwidth in the data due to uncertainties (allocating the accident to a unit) and the distribution in compliance to the 74 identified risks
• Number of incidents / accidents is significant however usage is also very high (therefore probability becomes less)
• It appears that the number of callbacks on more recent units is slightly more compared to older units, most likely due to complexity
• Specific users = specific accidents
Looking at 2 recent fatalities

- Actual usage was completely outside of the “normal usage” scope
- Customers perceive no risk when using lifts (or escalators)

Related risks were not even foreseen in recent code! This requires a investigative mind set and proactive approach. The risk analysis methodology of SNEL can be used
VLR strategy will be:

• Continue promotion of the SNEL and the rational behind it (risk assessment) independent if it becomes national regulation or not
• Continue focus on the collection and use of factual data to make certain we address the correct issues
• Expand the scope of improvements beyond codes to address specific risks in a changing market and a changing use(r)