EN 81-20 / EN 81-50

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Consequences for the European Lift Industry

Ian Jones
Chairman – CEN/TC10/WG1
The EN81-20 and EN81-50 documents will represent the biggest change to the design standards for lifts for the last 20 years.

They represent 15 years of work by more than 400 experts in the field of lift safety and technology.
Many items have influenced the creation of these new standards, such as:

- improvement in safety due to changes in proven technology and the need to reflect changes to the state of the art;
- incorporation of essential health and safety requirements from modified EU Directives;
- elimination of reported errors;
- clarification of the text and incorporation of proposals resulting from interpretation requests;
- improvement of the references to other standards according to the progress in that field.
EN 81-20 and EN81-50 have now been finalised and sent to Final Vote within the National Standards Bodies, such as AFNOR, AENOR, DIN, BSI & UNI.

The vote will close on the 27th April, with the expectation it will be positive.

Therefore, publication should be in July 2014 with a transition period of 3 years, meaning manufactures can use the old EN81-1/2 up to July 2017.
Increased safety for passengers

Examples of new requirements:

- Increased strength of doors, car and well
Increased safety for passengers

Examples of new requirements:

• Increased lighting in the lift car.
• Prevention of persons leaving car if stopped between floors.
• Improved materials used in car enclosure (flameproof and safety glass).
• Better classification of loading conditions, and safety using loading vehicles (forklifts etc).
Examples of new requirements:

- Increased refuge space in pit and headroom
- One space for each person

<table>
<thead>
<tr>
<th>Type</th>
<th>Posture</th>
<th>Pictogram</th>
<th>Area of refuge (m x m)</th>
<th>Height of refuge (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standing</td>
<td><img src="image" alt="Standing Pictogram" /></td>
<td>0.40 x 0.50</td>
<td>2.00</td>
</tr>
<tr>
<td>2</td>
<td>Crouching</td>
<td><img src="image" alt="Crouching Pictogram" /></td>
<td>0.50 x 0.70</td>
<td>1.00</td>
</tr>
<tr>
<td>3</td>
<td>Laying</td>
<td><img src="image" alt="Laying Pictogram" /></td>
<td>0.7 x 1.0</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Key for pictograms:
1: Black colour
2: Yellow colour
3: Black colour
Examples of new requirements:

- Pit control station and improved car top control
- Improved pit access (ladders, control positions, etc)
- Emergency lighting on car roof
- Improved balustrade on car roof
- Door bypass control to prevent use of “shorts”
Development of new products requires time and manpower and should be considered according to the implementation dates.

New materials will need to be sourced and additional components are required to be purchased or manufactured.

Some new elements will require new product certification, which may need to be from independent sources. e.g. Notified Bodies
• There may be a need for new product documentation describing new features.
  (user manuals, certificates, etc)

• New installation methods and risk assessments may be required.

• New on site test procedures to show product conformity.
Legend:

• EN81-1 and EN115-1 are adopted as national standards, without any changes to the content published by CEN, e.g. CEN members and affiliate countries; or

• EN81-1 and EN115-1 are used as the basis for national standards, but with national deviations, e.g. China and Hong Kong; or

• The “basic” requirements of the national standards are equivalent to EN81-1 and EN115-1, e.g. India and Russia; or

• EN 81-1 and EN115-1 are accepted beside other international standards, such as A17.1, e.g. Dubai.
Global Harmonisation

There have been numerous discussions in CEN and ISO about the possibility of a new “global” design standard for lifts.

It seems there may now be a real chance to have the latest and most up to date standard (EN81-20) form the basis for a world wide ISO giving the same technical requirements for lift safety regardless of where in the world the lift may be installed, serviced or inspected.
Global Opportunity

With as much as 70% of the world market for lifts now being outside of Europe a global prescriptive standard would allow increased access to the major developing markets, such as those in China and India.

This would be of particular benefit to those European manufacturers supplying components.
National associations should do all they can to advise their members and other interested parties of the changes which might be required on publication of EN81-20 and EN81-50.

- Association documents should be reviewed where reference is made to EN81-1 or EN81-2.

- National authorities should also be advised in cases of reference to EN81-1 or EN81-2, for example where technical changes may effect building regulations. e.g. due to increase in refuges spaces agreement with national authorities over the interpretation of EHSR 2.2 of the Lifts Directive should be checked.
National associations should advise their members of:

- implementation dates for EN81-20 and transition periods.
- the requirement for all units installed after July 2017 to be compliant or to have design approvals from Notified Bodies.
- recommendation to review existing designs, particularly where there may be design approvals amended after 2017.
National associations should make their members aware of ELA - Hot Topic No 4.

This is intended to give guidance on the major changes brought about by EN81-20 and EN81-50, and includes a detailed presentation on these changes made available by CEN/TC10.
Thank You!

Questions?