

## **Live Working Association**

# **General guidelines for safe live working**

was approved at the LWA SC and LWA TC meeting in Zagreb, Croatia, on 12<sup>th</sup> and 13<sup>th</sup> May 2009.

### **Introduction**

The Live Working Association established a working group for preparing guidelines which cover essential provisions for live working activities. These guidelines shall provide support to companies engaged in live working.

In order to maintain the highest safety standards the employer should ensure frequent involvement of workers in the intended live working activities.

These guidelines are only for recommendation.

National regulations and technical standards will always take precedence (higher power) over these guidelines.

The application of the following criteria may depend on the voltage level or the specific type of live working.

These guidelines are based on the EN 50 110 "Operation of electrical installation".

### **Personal criteria**

#### **Pre-selection**

- Practitioners who carry out live working should be at least 18 years
- Practitioners have to furnish proof of an electro-technical professional training
- Practitioners need practical experience of work in similar de-energized installations.
- Practitioners need a basic knowledge of the electrical installation
- The employer should strive to ensure that the practitioners are medically and psychologically fit for live working (see also ISSA "Guideline for Assessing the Competence of Persons involved in Live Working").

#### **Training**

- Practitioners have to undertake theoretical and practical training in live-working activities and they must regularly attend professional development programs /refresher courses with examinations.
- On successful completion of the training the practitioner should receive appropriate certification.
- Every practitioner has to apply the considered live working activity completely and in a safe way.

#### **Authorization**

- Appropriate certification is necessary to obtain authorization.
- The medical and psychological fitness should be assessed periodically.
- The level of ability of each practitioner should be reviewed periodically by the employer.

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- Employees under the influence of alcohol and drug (as well as some medicine) are not allowed to carry out live works and have to leave the work place.

### Technical criteria

- The equipment used shall meet the existing standards especially these established for live working (IEC or CENELEC).
- Practitioners of live working activities have to be provided with adequate protective equipment against specific live working risks (i.e. electric shock, electric arc, etc.).
- In the case of tools and equipment not covered by international or European standards, they should be designed and manufactured in accordance with the state of the art in the field of live working.
- Tools and equipment must be used by the practitioner according to the basic safety rules and the instructions of the manufacturer.
- Tools and equipment must be stored, maintained and checked periodically in order to ensure that they can be used safely. Adequate inspection should be carried out before every use.
- Defective tools and equipment have to be removed from further use.

### Organisational criteria

- All work undertaken shall comply with the basic safety rules and/or procedures.
- Practitioners should possess a live working authorization (live working passport) for the work activities to be carried out.
- Every live work activity can only carry out by agreement with the responsible persons.
- Live working should always be carried out by two or more practitioners. According to national regulations it may be possible to carry out some low voltage works with only one practitioner after satisfactory risk assessment. Live working activities on high voltage are only allowed under direct supervision of the nominated person.
- The team leader is responsible for the completion of the instruction covering the safety requirements of the work.
- The team leader ensures that every crew member is instructed and understood these instructions before starting the work.
- Procedures with ergonomic unfavourable postures should either be avoided or restricted (e.g. time limitation, change of personnel/procedure).
- Contractors shall be checked by the ordering customer/contracting authority to ensure that they meet the safety criteria (practitioners, equipment, safety rules)
- Those engaged in live working must have the opportunity to not to start or to interrupt activities if the circumstances at the working site are unsafe.
- The working sites must be clearly delineated to avoid danger to third parties.