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PREF. SUBJECT: PS3 **OUESTION N°: 3.2 REGISTRATION NUMBER: DLG561**

Are line workers safer today than they were ten years ago? Does anyone have data to prove this?

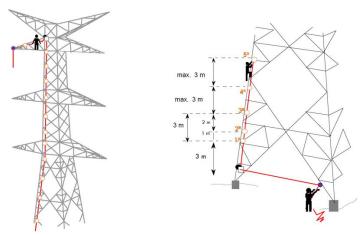
GROUP REF.: 1

Overhead line construction and maintenance activities involve an important number of tasks that are carried out by means of works at height procedures. This is particularly true for tower erection and conductor stringing tasks, where the presence of line crews working at height is nearly permanent during working days.

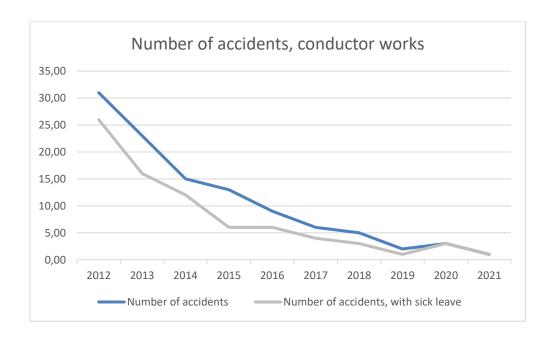
More than 20 years ago, Red Eléctrica designed a very specific safety procedure in collaboration with construction companies and safety material manufactures. This is considered still today an important safety milestone. The safety procedure main elements are the combination of a safety rope combined with fall arrest devices.

The installation of the safety system as well as all the works carried out follow a very strict safety procedure to guarantee risk mitigation and thus worker safety.

The typical scenario is depicted in the following images. Image on the left shows an installed safety rope ready to be used for subsequent operations. On the right, distance restrictions between temporary anchor points installation are shown.



Question 3.2 ask specifically for worker safety over the last ten years. Following is a graph showing number of accidents related to conductor works in overhead lines. Yearly data is comparable in terms of volume of works and worked hours.



As can be seen from the graph, there is a significant improvement in safety figures over the last 10 years.

There are three main reasons for this continuous improvement, since the first use of the described safety system more than 20 years ago:

- 1. Continuous training of workers and lessons learned feedback from accidents and incidents
- 2. Personal Protective Equipment (PPE) design improvement and easiness to use. Following is an example of design evolution of a Mobile fall arrester for rope. Old design needed a higher tension rope to work properly



- 3. Probably the most important one, the increased awareness and participation of all stakeholders in health and safety matters, developing behaviors and attitudes that consolidate the commitment to a preventive culture of "zero accidents".
 - As per this preventive attitude and cultural change, workers are now more and more aware of the fatal consequences of the misuse of a safety system that has been specifically designed to ensure their safety and thus understand the importance of the correct use of all the system elements.
 - Preventive attitude is a key factor when explaining the differences between the health and safety management today and 10 years ago.