efnms EHSEC

Personal Protective Equipment (PPE)

Unfortunately, employees that work on electricity networks regularly do not wear the prescribed Personal Protective Equipment (PPE). The consequence is unnecessary injuries when a accident occurs. This flyer discusses two incidents. In the first incident the mechanic was wearing PPE's, in the second accident the mechanic was not. These examples are based on practice and unfortunately do not stand on their own.

Practical Example 1: Arc flash while cutting into a cable

What happened?

While cutting into a connection cable, the mechanic cuts to deep into the plastic outer shell of the cable with his knife. He hits the voltage-carrying electric wires. A short circuit and arc flash arise. Thanks to wearing the right PPE's, injuries have been prevented. The mechanic was wearing electric isolating hand gloves, flame resistant clothes and face protection. His clothes showed severe burn marks.

How did this happen?

A day before, the knife of the mechanic had broken while cutting into another wire. Therefore he had picked up a substitute knife. Because the new knife was razor sharp, the mechanic cut into the connection cable deeper then intended.

Practical Example 2: Short circuit during a meter change

What happened?

During the changing of a meter, the existing whirring had to be exchanged. While tightening the whirring, a loud bang followed by an arc flash originated following a short circuit. The mechanic incurs a variety of first and second degree burns on his arms and hands.

How could this have happened?

The mechanic was not wearing electric isolating hand gloves. He was wearing protective clothes, but his sleeves where rolled up. Furthermore, the mechanic possessed the necessary resources to shield of live parts. He did not use those resources.

The mechanic had been doing his job for a number of years but never experienced a similar incident. A form of 'occupational blindness' had originated. The mechanic was used to the risks he was exposed to. Because of his years of experience he was convinced that he could handle the risks and did not need the protective resources. He overestimated himself; his natural alarm did not ring.

Points of attention and measures

Work voltage free if possible

Always determine if your activities can be carried out voltage free. Is that not a possibility? Then be aware that you are working under voltage and carry out your activities as instructed in the safety work instructions and the work plan.

Working methods keep you safe

Network operators and contractors are committing themselves to ensure employees can work on the power grids in safety. The prescribed working methods are focused on protecting you from danger. Therefore, it is important that you read them thoroughly and follow them.

Wear PPE's!

Thanks to BEIVIAG

Wearing PPE's is the last measure of your protection from a safety perspective. Despite all precautions, it is possible that something happens then may cause injuries. This is something to always take into account. Make use of the prescribed PPE's and wear them as they are supposed to.





These points of attention are about things that often go wrong. Other things can go wrong as well. Keep an eye out and make sure you can work safely!