



Safety recommendation no. 144

Date of the publication	02.09.2019
Number of the final report	2017072501
Safety deficit	<p>On 25 July 2017 at 01:30, an accident involving high-voltage current occurred during maintenance work on the overhead line at Visp. The accident occurred as a contact line fitter was trying to replace an insulator of the contact line in accordance with his job order. Contrary to what he thought, the contact line was live. An arc flash occurred when a tool was brought into the proximity of the contact line, severely injuring the fitter.</p> <p>The accident was due to the arc flash that occurred during work on the contact line because a contact line in the work area was live. Contributing factors to the accident were:</p> <ul style="list-style-type: none">• The “5+5 safety rules when dealing with electricity” were not fully or consistently obeyed.• The risk assessment was generalised and not appropriate for the specific task in hand.• The safety plan did not include any information or measures regarding a live contact wire section at the work site.• The job order was not clear and contained maintenance measures that were not feasible.• No site inspection was carried out in the preparatory phase.• Employees were not briefed at the work site before carrying out the work.• The overhead lines were not grounded on all sides of the work site. <p>Other factors:</p> <ul style="list-style-type: none">• The sign of the “electrical separation (with parallel circuit)” symbol did not contribute to recognising the hazard.• The T-shirt made of synthetic material could have exacerbated any burns on the upper body. <p>The present case shows that the work preparations including documentation, handover, briefing and check did not ensure safe working conditions at the work site. The required documents contained errors and were not matched to each other. There was no briefing or inspection on site. The cases at Rivaz (VD), no. 2018030601, and La Conversion (VD), no. 2018032301, also revealed safety deficits in relation to the preparation for the work.</p>
Safety recommendation	<p>The Federal Office of Transport (FOT) should continue its audits and checks/operational inspections, with the focus on safety at the workplace, and examine additional findings and measures of the infrastructure manager in relation to effectiveness and sustainability. The focus should be placed on the following aspects in particular:</p> <ul style="list-style-type: none">• checking the previous processes such as: risk analysis, safety plan, construction work regulations, job order and documentation, and the job handover and instructions to the employee doing the work, and inspecting the work site.• organisation of training and professional development courses for

employees on the work preparation process and monitoring them regularly for quality assurance purposes.

Addressees	Bundesamt für Verkehr
Stage of the implementation	Implemented. The Federal Office of Transport (FOT) confirms that the audits and checks/operational inspections will be continued and that the effectiveness and sustainability will be checked as part of the safety monitoring.
Investigation report concerning the safety recommendation	<u>Vorbericht</u> <u>Schlussbericht</u>