




# Safety Alert



## Title: Temporary Earths/Bonds - Tail clamps

Incident		Description	
Event Date: 11/08/2020	Time: 14:30pm	Location: Trustpower 110kV Line - Wheao-Rotorua 0305	
Investigation Status:	On-going	NP Reference / External Reference: INV # 6566	
Event Description:	<p>During a site visit to a de-energised pole replacement job, a set of worksite earths applied to the conductors were identified with an older style 25kA tail clamp attached to the earth spike. The obsolete tail clamp in photo 1 is clearly different to the tail clamps in photo 2 which show the strengthened web TP approved design. The supervisor and crew were immediately informed of the tail clamp to help raise awareness on site. The earths were removed from conductors and the portable earth with the obsolete tail clamp replaced.</p> <div><div><p>Photo 1</p><p>Older style / Poor design</p></div><div><p>Photo 2</p><p>strength webs on approved tailclamps</p></div></div>		
Potential Outcome:	<ul style="list-style-type: none"><li>Tail clamp blown off the earth spike in the event of large electrical / mechanical forces produced by fault currents. This can cause serious injury.</li></ul>		
Actions Required / Messages:	<ul style="list-style-type: none"><li>Thoroughly inspect all portable temporary earthing and bonding equipment by competent employees at all transmission division depots and substations.</li><li>Only approved temporary portable earthing equipment shall be used.</li><li>Ensure all staff are fully aware of the differences between the older style of tail versus the latest approved tail clamp designs.</li><li><b><u>Important to remember “tighten tail clamps by hand only!”</u></b></li><li>Report any older style (obsolete) tail clamps or any tail clamps with signs of over-tightening, physical damage or jaws that are not parallel.</li><li>Do not attempt to bend jaws back into shape as this can result in further weakening of the material as shown in photo 3. Clamps must be scrapped.</li><li>The approved tail clamp is available from BETACOM or ELECTROPAR.</li></ul> <div><p>Photo 3</p></div>		
SM-EI Reference:	3.701 USE OF PORTABLE EQUIPMENT ON OR NEAR HV CONDUCTORS		
TP.SS Reference:	07.24 Work site and mobile plant temporary earthing and equipotential bonding in HV switchyards- Section 8 Note: 3		
Contact Person:	Clinton Toi – Northpower Trade Specialist		