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## Network Rail Safety Bulletin

### Access to signalling power supply systems operating between 175V ac and 650V ac

**For the attention of: All staff working with signalling power supply systems**



Never assume equipment is isolated –  
always test before touch.



Never undertake any job unless you  
have been trained and assessed as  
competent.

**Work must always be carried out with the supply dead, unless it is unreasonable to work dead, and a suitable risk assessment has been carried out to show that it is reasonable to work live.**

### The maximum safe working voltage is 60V ac & 120V dc

Any conductor energised at or below these voltages is considered to be safe.

Any conductor energised above these voltages must be considered live and wherever possible isolated prior to work. If this is not possible then suitable precautions must be taken before any work is carried out on energised conductors. For further information, please refer to Safety Bulletin 278 dated 26 April 2013.

If you have to work on or near a conductor (closer than 300 mm) between 175V ac and 650 V ac where isolation is not possible, then you must use live working procedures. Between 60V ac and 175V ac, a local risk assessment must be completed to determine if live working procedures are required.

External metalwork, for example the case of a Functional Supply Point (FSP) and metal covers of equipment within the FSP, should not normally be live. The test before touch lifesaving rule still applies. If testing shows any voltage to be above 60V ac you should first consider isolation. Live working must only be applied where isolation is not possible.

If you are required to work on equipment live above the maximum safe working voltage, then you must be competent in live working.

Where live working is necessary, you must use insulated gloves and you can choose between the thinner Class 00, or Class 0 gloves.

**For further advice, contact Robert Wilson, Principal Engineer,  
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