

What's happening?

Best Practice on TLP KO2

Integrated Lockout Device design

Overview:

The SRA TLP senior project engineer worked with rail equipment supplier Unipart to re-design the lockout device. The lockout device is normally situated as near as reasonably practicable to a lineside telephone, therefore traditionally, the 2 pieces of equipment are situated next to each other. The new design incorporates the telephone into the lockout device, removing the need to manufacture and install the associated lineside telephone components (casing, post and base). SRA will be installing 109 of the new integrated Lockout devices on TLP.

Benefits

Key benefits over traditional lockout device include:

- Cost savings – no need to purchase lineside telephone casing, mounting post and base. Also removes the need to transport extra equipment/material on site.
- Time savings – fewer components required therefore easier and faster to install.
- Carbon savings – less materials required in production and transportation of the device.



Embodied energy / carbon

Embodied carbon refers to carbon emissions emitted during creation of a product or material, including mining, raw material extraction, processing, manufacturing and transportation. For the integrated lockout device, embodied carbon emissions will be lower than the traditional lockout device as it eliminates the need for extra aluminium casing, steel mounting posts and concrete bases. In order to calculate embodied carbon emissions saving, we calculated the embodied carbon emissions from each component and multiplied by the number of lockout devices we are installing on TLP, roughly saving **5,546 kg CO₂-equivalent embodied carbon** (using various emission factors from the Inventory of Carbon and Energy).

Meeting TLP objectives and targets

This initiative is aligned with the following TLP Sustainability Strategy Objectives:

- Objective 17 'To increase the life of materials and reduce the consumption of virgin and unsustainable sources of materials'
- Objective 15 'to minimise the levels of carbon generated over the whole life of TLP'
- Objective 18 'Reduce waste during design process'