

| <b>Work Instruction</b>   |                 | <b>WO No.</b>   |                            |
|---|-----------------|---|----------------------------|
|   |                 | <b>Date:</b>  |                            |
| <b>Scope:</b>   |                 |   |                            |
| <b>Team Leader:</b>   |                 | <b>Signal Type:</b>   |                            |
| <b>Activity:</b> Signal Like for Like Renewal<br>(Includes any sub-component of the signal (E.g.: lower head, shunt route indicator, etc.)) |                 |   |                            |
| <b>Reference:</b> PR S 40010, PR S 40011  |                 |   |                            |
| <b>Activity No.</b>   | <b>Task No.</b> | <b>Work Description</b>   | <b>Completed Name/Sign</b> |
| <b>APPARATUS INSPECTION &amp; PREPARATION</b>   |                 |   |                            |
| 1   | 1A              | Ensure the new signal is of correct type, profile and configuration in accordance with the specific design and compare to the existing signal. Document the signal profile.   |                            |
|   | 1B              | Bell test and wire/null count internal wiring of the new signal, compare to the specific circuit design and existing signal. Include a correlation of busbars, connected links and bridges to the circuit book. Also applies to the trainstop cable terminals (in the signal base) if connected through the signal. Visually inspect (as accessible) and insulation test the internal wiring. |                            |
| 2   | 2A              | On the existing signal, wire/null count the incoming terminals, including bridges and links and identify tail cable core numbers on the terminals and compare to specific circuit diagram. Also applies to the trainstop cable terminals (in the signal base) if connected through the signal.  |                            |
|   | 2B              | Document the disconnections on attached circuit diagram.  |                            |
|   | 2C              | Conduct an apparatus inspection of the condition of the existing signal mounting/fixing arrangements. Prepare to replace as required.   |                            |
| <b>SAFeworking &amp; DISCONNECTION FROM INTERLOCKING</b>  |                 |   |                            |
| 3   | 3A              | Ensure the affected signal is booked out of use in accordance with PR S 40008.  |                            |
|   | 3B              | Disconnect the signal (and associated trainstop if applicable) in accordance with PR S 40009 – Disconnection of Signalling Apparatus.   |                            |
| <b>DISCONNECTION, REMOVAL AND INSTALLATION</b>  |                 |   |                            |
| 4   | 4A              | Open links in location for signal (and trainstop if connected through the signal) tail cable(s).  |                            |
|   | 4B              | Disconnect cable(s) from signal, protect ends and withdraw clear.   |                            |
|   | 4C              | Remove signal and renew any defective fixing material.  |                            |
| 5   | 5A              | Install new signal and ensure correct to structure gauge.   |                            |
| 6   | 6A              | Inspect the tail cables for signs of damage. Conduct an insulation test of the tail cable(s) and record on circuit diagrams.  |                            |
|   | 6B              | Connect the cable(s) to the signal in accordance with previously correlated circuit diagram.  |                            |
|   | 6C              | Ensure the installation is physically correct. Ensure all bolts and nuts are appropriately fastened.  |                            |

| Activity No.                | Task No. | Work Description  | Completed Name/Sign |
|-----------------------------|----------|---|---------------------|
| <b>APPARATUS ADJUSTMENT</b> |          |   |                     |
| 7                           | 7A       | Close all associated terminal links in location. Operate signal (and trainstop if applicable) and confirm correct operation.  |                     |
|                             | 7B       | Focus the complete signal for correct alignment.  |                     |
| <b>CERTIFICATION</b>        |          |   |                     |
| 8                           | 8A       | Wire count all terminals with incoming tail cable installation to circuit diagram ( <b>NB:</b> links to be counted as wire). Record on circuit diagram. Also applies to the trainstop cable terminals (in the signal base) if connected through the signal. Record on circuit diagrams. |                     |
| 9                           | 9A       | As applicable for trainstop: Operate the trainstop Normal contacts or contact device and ensure VNR is de-energised and energised accordingly.  |                     |
|                             | 9B       | As applicable for trainstop: Operate the trainstop Reverse contacts or contact device and ensure VRR is de-energised and energised accordingly.   |                     |
| 10                          | 10A      | Ensure correct signal profile (including name plate and other signage).<br>Ensure staggered heads where necessary.  |                     |
|                             | 10B      | Confirm correct lamp/led voltage and no-voltage.  |                     |
|                             | 10C      | Confirm lamp/led proving functional (if applicable).  |                     |
|                             | 10D      | Confirm lamp /led flash rate correct (if applicable)  |                     |
| 11                          | 11A      | Arrange with the signaller to conduct a functional test of the signal for each signal route - first aspect.<br>Ensure the trainstop, operates as per design (if applicable).  |                     |
|                             | 11B      | Arrange with the signaller to clear signal(s) in advance and functionally test each aspect correctly sequences.<br>Ensure the trainstop, operates as per design (if applicable).  |                     |
| 12                          | 12A      | Ensure signal (and trainstop if applicable) is secure.  |                     |
|                             | 12B      | Complete the applicable Inspection and Testing of Signalling –TC1 certificate.  |                     |
|                             | 12C      | Book signal back into use.  |                     |

I certify \_\_\_\_\_ signal (and trainstop if applicable) at \_\_\_\_\_  
 location have been inspected and tested and are fit for service.

\_\_\_\_\_  
 Print Name Position

\_\_\_\_\_  
 Signature Date