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GERT8000-HB19

Rule Book

Handbook 19

## Work on signalling equipment - duties of the signalling technician

Issue 4



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# 1 General

## 1.1 Definitions

The following terms and their meanings apply within this handbook.

### **Defective signal**

A signal which is not operating or displaying correctly, or where the light is out when it should be illuminated.

### **Equipment disconnected**

Equipment that has had its functions limited so that it cannot be operated by the signaller. This includes a signal adjusted to show only its most restrictive aspect or route setting barring.

### **Equipment out of use**

Equipment that the signaller must not operate.

### **Equipment restricted**

Equipment that has had its functions limited but may continue to be operated by the signaller. This includes:

- temporary approach controls on signals
- signals with restricted aspects
- on an ERTMS line, a route setting position (RSP) restricted to prevent the signaller from issuing a movement authority (MA) beyond it
- points that have been restricted so they can only be used in the normal (or reverse) position.

**Equipment removed**

Equipment that has been permanently taken out of operational use.

**Signalling equipment**

This includes:

- signals and associated indicators such as right away (RA), close doors (CD) and OFF indicators
- points, track circuits, axle counters and treadles
- automatic warning system (AWS), train protection warning system (TPWS)
- ERTMS equipment
- train operated warning systems (TOWS)
- level crossing controls
- interlockings and block signalling equipment
- data transmission equipment.

**Work which affects the normal operation of signalling equipment**

Any work which will interfere with signalling equipment and needs the signaller's permission before it is carried out but which can be completed in a suitable interval between trains.

**Work which affects the normal passage of trains**

Any work which will interfere with signalling equipment and would prevent trains passing or would allow trains to pass only by diversion or degraded-mode working.

## **1.2 When the instructions in this handbook apply**

The instructions in this handbook apply:

- to a failure of signalling equipment
- to work on signalling equipment
- when a release of signalling controls is needed.

## **1.3 When the instructions in this handbook do not apply**

The instructions in this handbook do not apply to work on signalling equipment when all the following are met.

The work:

- will not affect the normal passage of trains
- does not need the signaller's co-operation
- will not affect the normal operation of the signalling equipment.

The instructions in this handbook do not apply when signalling equipment is to be disconnected to provide additional protection for a line blockage.

## **1.4 Technician's responsibilities**

You are responsible for any work associated with disconnections, restrictions or taking equipment out of use.

You must get the signaller's permission before making, or arranging to make, any disconnection or restriction or take any equipment out of use.

If trains are put in danger, you can make an emergency signal disconnection without asking the signaller's permission. However, you must tell the signaller as soon as possible what you have done.

If you need to operate a lever, button, switch or other signalling equipment for test purposes, you must:

- ask the signaller to operate it, or
- ask the signaller for permission before you operate it.

## **1.5 Using a Signal Engineering Work form (RT3187)**

You must use form RT3187 when:

- signalling equipment will be taken out of use, disconnected or restricted to allow work as shown in section 3 of this handbook, and
- trains, other than engineering trains in a possession, have to pass through the affected area.

You do not need to use form RT3187 if all the signalling equipment affected is within the area of a line blockage, protection zone or possession and it is planned to restore the equipment to normal use before the line blockage, protection zone or possession is given up.

However, if the line blockage, protection zone or possession will be given up but signalling equipment will stay disconnected or restricted, you and the signaller must fill in form RT3187 before the line blockage, protection zone or possession is given up.

You do not need to use form RT3187 during a failure of signalling equipment unless equipment will be taken out of use, disconnected or restricted and it will not be possible to complete the work before trains have to pass.

If another signalling technician takes over from you before the disconnection or restrictions are made, or the equipment is taken out of use, you must make sure that person fully understands the arrangements that apply.

If form RT3187 has been used, you must give this to the new signalling technician.

If you are the new signalling technician, you must fully understand the arrangements that apply and if form RT3187 has been used, you must sign part 3 of your copy of this form.

## **2 Work that will not affect the normal passage of trains**

### **2.1 When these instructions apply**

The instructions in this section apply only if the work will not affect the normal passage of trains but will affect the normal operation of signalling equipment.



## **2.2 Before starting work**

Before starting work which will affect the normal operation of signalling equipment, you must come to a clear understanding with the signaller about:

- what work needs to be done
- how the signalling equipment will be affected
- any other equipment that will be affected
- how long the work will take
- the time that permission will be given for the work to start
- the time by which the work must be completed.

## **2.3 When the work is completed**

You must tell the signaller when the work is completed and the equipment is in working order.

## **2.4 If the work cannot be completed**

As soon as you realise you cannot complete the work within the agreed time, you must tell the signaller.

# **3 Work that will affect the normal passage of trains**

## **3.1 When these instructions apply**

You must apply these instructions to work on signalling equipment which will affect the normal passage of trains.

### **3.2 Before starting work**

You must come to a clear understanding with the signaller about:

- what work is to be done
- the details of equipment that will need to be disconnected, restricted or taken out of use
- any other equipment that will be affected
- how long the work will take
- how the work will affect train working
- the time that permission will be given for the work to start
- the time by which the work must be finished.

You must enter the details in part 2 of your copy of form RT3187 at the same time as the signaller.

You must not allow any disconnections or restrictions to be made or take equipment out of use until the signaller has given you permission.

When the signaller has given you permission, you must:

- enter the details in part 2 of your copy of form RT3187 at the same time as the signaller
- disconnect or restrict the agreed signalling equipment.

When the disconnections or restrictions have been carried out or the equipment taken out of use, you must tell the signaller and enter the details in part 2 of your copy of form RT3187 at the same time as the signaller.

### **3.3 During the work**

No alteration to the work must be made unless you have first agreed the changes with the signaller.

If it is necessary to agree changes, you must again carry out the relevant instructions in 3.2 of this handbook. You must use a new form RT3187 and cancel the previous form.

### **3.4 When the work is completed**

You must tell the signaller when the work is completed and the equipment is in working order.

You must fill in part 4 of your copy of form RT3187 at the same time as the signaller.

### **3.5 If all the work cannot be completed**

If all the work cannot be completed, you must tell the signaller the details of:

- the work that has been completed
- equipment that is in working order
- work that has not been completed
- any equipment that will stay disconnected or restricted
- any equipment that will be taken out of use
- what arrangements will be made to complete the work, if known.

You must fill in part 4 of your copy of form RT3187 for the equipment that is back in order at the same time as the signaller and then a new form for details of the equipment which will stay disconnected or restricted.

## 4 Releasing signalling controls

### 4.1 When these instructions apply

You may only release signalling controls when one of the following applies.

- a) A track circuit has failed holding points and it is necessary to move those points to the opposite position.
- b) A track circuit or other equipment has failed holding a route and it is necessary to release that route so that movements that are clear of the failure can be signalled.
- c) An obstruction of the line, derailment or engineering work is keeping a track circuit occupied, and it is necessary to signal movements that will be clear of the obstruction.

You must not release a control which will allow:

- a line clear to be given on any block indicator, or
- a proceed aspect or indication to be displayed by a signal held at danger by a track circuit or axle counter failure
- an MA to be issued beyond an end of authority (EoA) when a track circuit or axle counter failure is preventing it on that route.

### 4.2 Procedure for releasing signalling controls

You must come to a clear understanding with the signaller as to which controls are to be released.

You must fill in part 1 of your copy of Release of Signalling Controls form (RT3186) at the same time as the signaller.

If you agree to a release being given, you must then fill in part 2 of your copy of form RT3186 at the same time as the signaller.

You must then:

- release the agreed signalling control
- tell the signaller when you have done this.

You must then fill in part 3 of your copy of form RT3186 at the same time as the signaller.

#### **4.3 Change of signalling technician**

If a release of signalling controls is still in place when another signalling technician is to take over from you, you must make sure the signalling technician taking over fully understands the arrangements that apply.

If you are the new signalling technician, you must sign part 5 of your copy of form RT3186 while the signalling technician you are taking over from is present. You must then tell the signaller you have taken over.

#### **4.4 Cancelling a release of signalling controls**

When the signaller asks you to restore the signalling controls, you must fill in part 4 of your copy of form RT3186 at the same time as the signaller.

You must then:

- restore the signalling controls
- tell the signaller when you have done this.

You must then cancel your copy of form RT3186 by writing 'CANCELLED' across it.

## 5 Equipment that has failed

### 5.1 Before starting work on the failure

You must come to a clear understanding with the signaller about:

- what signalling equipment has failed
- what other equipment will be affected by the work to repair the failure
- whether any equipment needs to be disconnected, restricted or taken out of use
- whether form RT3187 has to be used.

You must agree with the signaller the time work can start.

### 5.2 If the work needs equipment to be disconnected, restricted or taken out of use

You must not make any disconnections or restrictions unless the signaller has given you permission.

If form RT3187 is to be used, you must enter the details on part 2 of your copy at the same time as the signaller.

When the signaller has given you permission, you must:

- disconnect or restrict the agreed signalling equipment
- tell the signaller when this has been done.

### **5.3 During the work**

You must not make any alteration to the work unless you have first agreed the changes with the signaller.

### **5.4 When the work is completed**

You must tell the signaller when the work is completed and the equipment is in working order.

If form RT3187 has been used, you must fill in part 4 of your copy at the same time as the signaller.

### **5.5 If all the work cannot be completed**

If all the work cannot be completed, you must tell the signaller the details of:

- work that has been completed
- equipment that is in working order
- work that has not been completed
- any equipment that will stay disconnected or restricted
- any equipment that will be taken out of use
- what arrangements will be made to complete the work, if known.

You must use form RT3187, giving details of all equipment that will stay disconnected, restricted or will be taken out of use.

## **6 Work on equipment when the line is under possession**

You must apply this instruction as well as the relevant parts of instructions 2, 3, 4 and 5 if the signalling equipment that has failed or is to be worked on is within a possession.

If the signalling equipment affected is within a work site, after the signaller has given you permission to carry out the work, you must also get permission from the engineering supervisor (ES) or safe work leader (SWL).

## **7 Working single lines by pilotman**

If a token is needed to operate a ground frame and the token is not available, you must release a token when the signaller asks you to do so.

Before you release a token, you must make sure the pilotman has shown you the completed pilotman's form.

You must hand the token to the pilotman who will keep it until either normal working resumes or you need the token.

On a one-train working line, when the train has arrived with the pilotman, you must personally:

- unlock the ground frame to allow the train to work at the ground frame
- lock the ground frame when the train has finished its work.



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## **Notes**

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