

*Til Dawn Lamp' Process*



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### Note:

*This good practice guide is intended to be used merely as an aid to understanding. Use of this good practice guide does not release those using its material from their obligations to comply with the relevant legislation and other mandated or recommended processes or standards. At the time of this guide being produced, the author made all reasonable effort to validate the accuracy of the information referenced. Photographs are provided for reference purposes only.*

## 1. Background

Points run through (PRT) incidents within Engineering Supervisor (ES), Person In Charge of Possessions (PiCOP) and/or Safe Work Leader (SWL) worksites still occur on an unacceptably frequent basis despite a number of improvement initiatives which have been introduced to prevent them occurring. This can lead to costs being incurred for point repairs, cancellation of work and the stand down of site staff - thus affecting the project programme.

An example of how points run through damage can affect a project programme was highlighted when 4 sets of points were run through over a 9 week period, causing over 3200 minutes of train delay and incurring £256,000 in costs. These incidents all took place whilst working in Engineering worksites. Typical PRT damage can be seen opposite.



Network Rail Operations (Western Route) and IP has introduced a specific method of working for the operation of points within ES, PiCOP and SWL worksites. This consists of using red 'Til Dawn Lamp's' (TDL's) positioned at points that are required to be moved within the worksite for On Track Plant (OTP) and On Track Machine (OTM) movements. The TDL's are not allowed to be moved until it has been confirmed that the points are set correctly for that particular movement.

Where the process has been implemented, the risk of points run through incidents has been reduced.

The use of the 'Til Dawn Lamp' (TDL) process provides support to the current point setting process and when implemented effectively on site has been proven to significantly reduce points run through incidents in ES, PiCOP, SWL worksites occurring.



### Key benefits:

- No additional staffing requirements
- Easy to understand / easy to implement
- Creates a check balance to prevent miscommunication between the machine controller and the machine operator
- Creates a record of movements over all points
- No points run through allows continuous site production

## 2. Purpose

The purpose of this process is to mitigate the risk of points being run through in possessions and the consequences this has on the operational railway.

## 3. Scope

The scope of the standard is all worksites within possessions on Network Rail Controlled Infrastructure that involve movements by plan over S&C. The process is mandated for all Network Rail employees and all those within the supply chain for the delivery of possessions.

## 4. The 'Til Dawn Lamp' Process

The RMD is accountable for the application of this process and the Organisation of the Lead Worksite Owner is responsible for delivery of the TDL's.

The process consists of using 'Red' TDL's positioned at all points that are planned / required to be moved within the worksite during the possession, to facilitate any movements for trains, OTP and OTM's, prior to movements over them – example of a TDL is shown in Appendix B.

The lamps are positioned in the 4ft either side of the points to stop any movement approaching or crossing over the points. No movement is permitted over any points protected by 'Red' TDL's without authority from the ES / SWL. Authority will only be given when it has been confirmed that the points are set correctly for that particular movement.

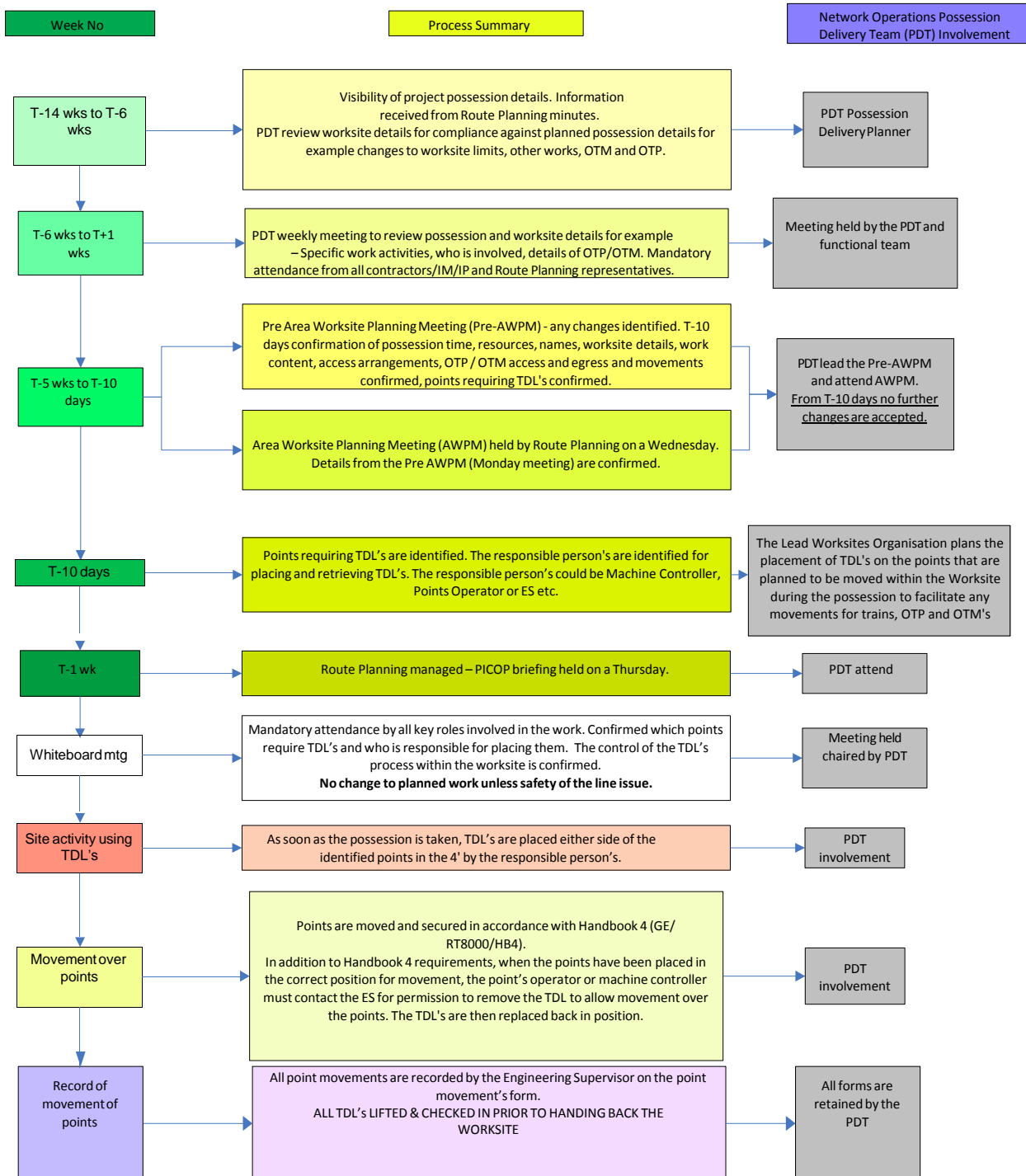
The ES / SWL records details of all points that are moved within his worksite (example form in Appendix C). Note - This is in addition to the RT3199 form.

Other considerations maybe required in relation to track circuit joint locations on the approach to switch toes and/ or plain line in the rear of S&C units and locations that may fowl and adjacent line.

The TDL planning process is summarised in the flowchart in Appendix A. The flowchart also highlights specific roles involved with the TDL process at the various stages.

## Appendix A

### 'Til Down Lamp' Planning Process





## Appendix B

### Typical 'Til Dawn Lamp' (TDL)

TDL lamps can be purchased from various safety product suppliers.

- wide retro-reflectivity prismatic lens surround
- impact resistant lens, moulded in premium quality polycarbonate
- conforms to BS3143:II
- flashing light mode (option)
- carry handle
- operates on two 6v batteries (rechargeable option).



### Supplier Information

- Till Dawns - <https://safeaidsupplies.com/rail/track-safety-equipment/tildawn-lamp-with-photocell-180mm-red/>
- PA:05/05458 - Boards - [http://inrailsafe.co.uk/?page\\_id=1989](http://inrailsafe.co.uk/?page_id=1989)

### Supporting Documents

- GE/RT8000/HB4 – Handbook 4 Duties of a points operator and route-setting agent-moving and securing points by hand.
- GE/RT8000/HB15 – Handbook 15 Duties of the machine controller (MC) and on-track plant operator.
- GE/RT8000/HB12 – Handbook 12 Duties of the engineering supervisor (ES).

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Network Operations Western Route & IP Shared Good Practice			Reduction of 'Points Run Through' in worksites using the TDL process	

## Appendix C

### Example of a 'Til Dawn Lamp' (TDL) – Record Form

Point Number		Point Number	
Name of Engineering Supervision		Name of Engineering Supervision	
Name of Points Operator		Name of Points Operator	
Position of Points when taken		Position of Points when taken	
Points moved to		Points moved to	
Points moved manually or by panel		Points moved manually or by panel	
Time taken to put onto manual		Time taken to put onto manual	
Permission to Lift TDL & Time		Permission to Lift TDL & Time	
TDL Replaced & Time		TDL Replaced & Time	
<b>PRIOR TO HANDING BACK WORKSITE ENSURE ALL MOVEMENTS OVER POINTS HAVE BEEN COMPLETED AND ALL POINTS THAT YOU HAVE MOVED ARE SET IN THE NORMAL POSITION – WHEN THIS HAS BEEN CONFIRMED COMPLETE THE SECTION BELOW</b>			
Has Detection been confirmed with Signaller in both positions		Has Detection been confirmed with Signaller in both positions	
Time returned to signaler / PiCOP		Time returned to signaler / PiCOP	
Time TDL Lifted/collected		Time TDL Lifted/collected	

**Note: More columns can be added to this form to provide more detail of point movements**

## Appendix D General Information Relating to Points Run Through and Point Setting

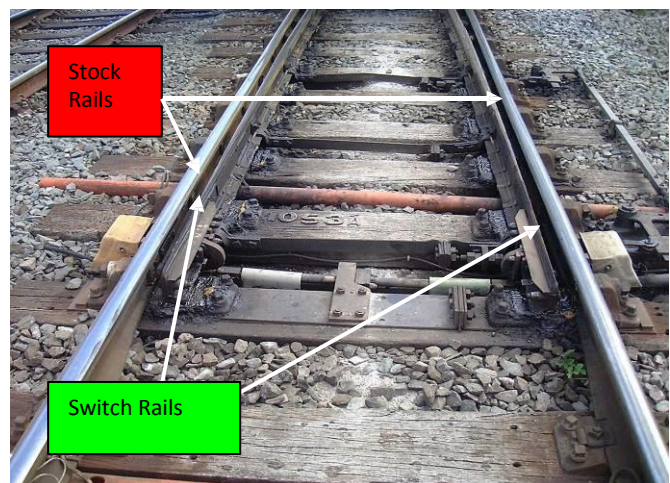
### What is a points run through?

A points run through occurs when a movement takes place through a trailing set of points which are not set in the correct position for that particular movement.

Damage can also occur when movement takes place through a facing set of points, when the switch rail is not set correctly against the stock rail thus allowing the rail wheel to spilt the points – see pictures.

Points are damaged when either the rail wheels of a machine contact the point ends and distorts them or when the machine derails bending the switches as the wheels of the machine derail between the switch rail and stock rail.

Points Not Set Correctly



Rail Wheels Splitting the Points



Stretcher Bar Damage





# Good Practice Guide – Reduction of Points Run Through in Worksites using the Til Dawn Lamp Process



## What is a 'Trailing' and 'Facing' point movement?

Pictures below show movements towards points in the trailing and facing direction.

### Trailing Points Direction



### Facing Points Direction

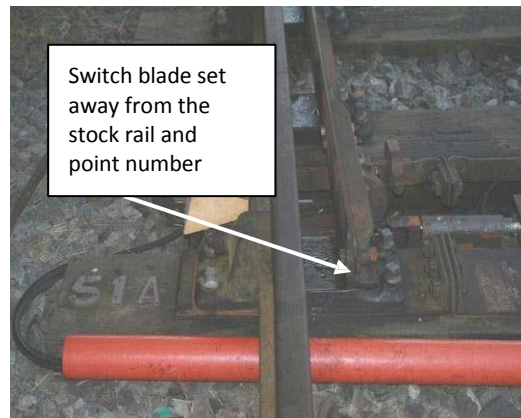


## What is a 'Normal' and 'Reverse' point settings?

When points are set they can be referred to as being set in the 'Normal' or 'Reverse' position. Examples of this are shown below.



Points Set to 'Normal' position is indicated the position of the point number.



Points set to the 'Reverse' position. by

## Appendix E

### Current Rules Relating to Point Setting in Possessions/Engineering Worksites

Moving power-operated points by hand within a possession of the line/ ES, PiCOP, SWL worksite is covered in 'GE/RT8000/HB4 – Handbook 4 Duties of a point operator and route setting – moving and securing points by hand'.

Summary of current rules:

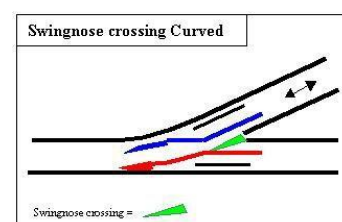
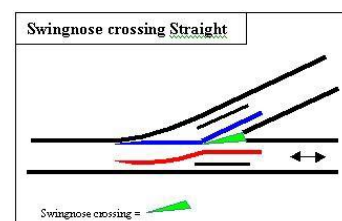
- Points that need to be moved by hand within a worksite do not need a route-setting agent.
- A Points Operator is deemed competent to move points within a possession of the line/ ES, PiCOP, SWL worksite when he is in possession of a valid point's operator certificate of competence issued by their employer.
- Before moving points by hand, the Points Operator must first make sure the signaller agrees to the points being moved by hand.
- Within an ES, PiCOP, SWL worksite the Points Operator must carry out the instructions given by the ES, PiCOP, SWL in relation to the position the points need to be moved to.
- The Points Operator must inform the ES, PiCOP, SWL when the points have been correctly set and secured for any movement that is to be made over them.
- When the ES, PiCOP, SWL no longer needs the points to be moved, the Points Operator must restore the points to the original position.
- The Points Operator must tell the signaller when the points have been returned to the original position and power has been restored.

Note: Within GE/RT8000/HB15 it details the checks the Machine Controller has to carry out in relation to checking points prior to machine movement over points.

### Securing Points

For swing nose crossings and switch diamonds – Use a clip and a scotch for movements over the points in all directions.

#### Example of Switch Nose Crossings





## Examples of Switch Diamonds



For all other types of points – Use a clip and a scotch for movements over the points in the facing direction. You only need to use the scotch for movement over the points in the trailing direction.

## Examples of scotch, point clips and padlock



## Applying points clip and scotch



The clip must be placed under the rail as near to the tip of the tongue as possible. Always try to get it in the first or second bed.

The scotch must be placed between the open blade and the stock rail. It must be well below the top of the running rail.