OBSTRUCTION ON DOUBLE LINE WORKING



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WHAT IS OBSTRUCTION ?

Obstruction and its cognate expressions includes a train, vehicle or obstacle on or fouling a line, or any condition which is dangerous to trains and that may foul the train operation.

WHY DOES OBSTRUCTION MATTER ?

While dispatching/receiving a train into/from block section, it is must to ensure that line free from any condition that is unsafe o train.

A section of track already occupied with a train, big stones on track, rail breakage, floods, trees fallen on track, level crossing gates in open condition etc., are some of the examples of obstructions.

In such occasions, generally trains shall not be dispatched without extra precautions.

The Station Master shall not give permission to take signals 'OFF' for a train until -
(a) All facing points over which the train will pass are correctly set and locked.

(b) All trailing points over which the train will pass are correctly set and

(c) The line over which the train is to pass is clear and free from obstructions.

OBSTRUCTION ON DOUBLE LINE – 8.05

OBSTRUCTION ON DOUBLE LINE AT A BLOCK STATION WHEN A TRAIN IS APPROACHING : -

- **CLASS 'A' STATION : - When Line Clear has been given, no obstruction shall be permitted outside the Home signal, or on the line on which it is intended to admit the train, up to the starter pertaining to the said line.**

- **CLASS 'B' STATION : - When Line Clear has been given, no obstruction shall be permitted outside the Station Section but shunting within the station section may go on continuously, provided the necessary signals are kept at 'ON'.**

- **When signals have been taken 'OFF' for an incoming train on to a line which is not isolated, no shunting movement shall be carried on towards the points over which the incoming train will pass.**

OBSTRUCTION ON DOUBLE LINE IN THE BLOCK SECTION
8.06

- When Line Clear has been given, **no obstruction shall be permitted in the Block Section in rear.**

- Shunting or **obstruction** for any purpose **shall not be permitted in the Block Section in rear unless** it is clear or B**locked Back.**

- Shunting or **obstruction** for any purpose **shall not be permitted in the Block Section in advance unless** it is clear or B**locked Forward**.

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Provided that when the Block Section in advance is occupied by a train travelling away from the station, shunting or **obstruction may be permitted**

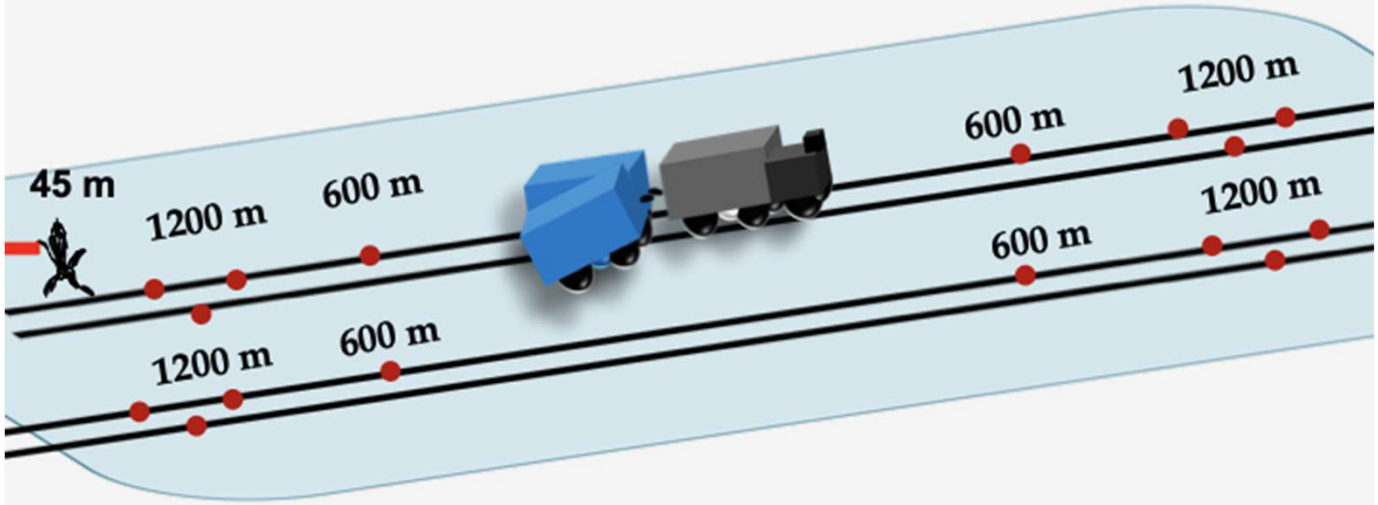
- **behind the train Under Special Instructions,**
- taking into the consideration the speed, weight and brake power of train and the gradients on the section and
- as soon as intimation has been received that the train has arrived at the Block Section in advance, **the line shall be blocked forward** if it is still obstructed.

Obstruction of adjascent line on double line section

- LP stops the train and ONs the Flasher light. The loco Pilot shall at once either himself proceed or send his Assistant Loco Pilot or Fireman or some other competent person to protect the adjacent line in front. The Guard shall send a competent person, if available, to protect the train in rear, and shall himself proceed ahead immediately to assist and ensure protection of the adjacent line in front .
- Detonators are placed. One detonator at 600 m from the obstruction , another at 1200 m from obstruction and two more at 10 m distance.
- LP keeps the flasher light on , runs and infirms the next SM.
- T/A.602 AUTHORITY FOR LP TO ENTER OBSTRUCTED BLOCK SECTION is given by SM.

Reception of train on obstructed line GR 5.09

PROTECTION OF TRAIN IN ABSOLUTE BLOCK SYSTEM



TEMPORARY SINGLE LINE WORKING

- Reason for introducing T.S.L to be known to concerned SMs at either and with the involvement of Control
- Single line working shall be introduced between the nearest stations provided with cross overs between UP and DN line on either side of the obstruction
- Place of obstruction if any to be made known to Loco Pilot in his papers
- I.B.H. / I.B.S. OR C Class Stations, if any TO BE CLOSED, the commutators of the block instruments shall be kept locked in ‘Train on Line’ position.
- Last train arrival/departure details to be mentioned.

TEMPORARY SINGLE LINE WORKING

Loco Pilot of each train shall be handed over an '**Authority** for Temporary Single Line Working on Double Line Section' **on form no. T/D 602** indicating

- he line on which the train or light engine is to run
- The **KM** between which the **obstruction** exists
- Any **speed restriction** which may have been imposed by 'Way and Works staff
- **Authority to pass the last stop signal** in the 'ON' position. In case the last stop signal is the starter, in addition to the written authority, he shall also be shown hand signals at the foot of this signal.

TEMPORARY SINGLE LINE WORKING

Train proceeding on the wrong line :

- **Points correctly set & facing points locked.**
- **The train shall be piloted out of the station on a written authority on form T/511**
- **Loco pilot to stop his train opposite the first Stop signal pertaining to the right line or at the last Stop signal pertaining to the wrong line (on which he is running), whichever he comes across first.**
- **Train piloted into the station on a written authority on form T/510 issued by the Station Master.**

Train proceeding on the right line

- •**Authority to pass last stop signal** at ‘ON’ in form T/D 602.
- •**In case of Last Stop Signal is Starter**, in addition to written authority, hand signals shall also be shown at the foot of this signal.
- •**The approach Stop Signals,** if any, of the station in advance of the affected section , may be taken ‘OFF.

Obstruction on double line in AUTOMATIC BLOCK SECTION – T/C 912

- FREE LINE to be used for the movement as though it were a single line
- For relief , TSL guidelines shall be used
- If both the lines are obstructed – relief trains shall be sent from both the stations. Maximum 2 relief trains.

Way forward in Obstruction

Japanese Rail Corporation are contemplating usage of IoT in management of obstruction , which could be replicated in India.

THANK YOU

