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**CHAPTER – XV****PERMANENT WAY AND WORKS****A. Railway Servants Employed on the Permanent Way or Works.**

**15.01. Condition of Permanent Way and Works - Each Inspector of Way or Works shall be responsible for the condition of the permanent way and works under his charge.**

**15.02. Maintenance of line - Each Inspector of Way or Works shall -**

- (a) see that his length of line or works in his charge are efficiently maintained, and**
- (b) promptly report to the Engineer-in-charge all accidents to or defects in the way or works, which he considers likely to interfere with the safe running of trains, at the same time taking such actions as may be necessary to prevent accidents.**

S.R.15.02/1. A Sectional Engineer (P. Way), who receives a report that a locomotive has received a lurch, shall immediately inspect the track and take all possible measures to remove the defect. Until the repairs are completed, he shall take such precautions for protection as are necessary.

**15.03. Keeping of material - Each Inspector of Way or Works shall see to the security of all rails, chairs, sleepers, and other material in his charge, and ensure that such of the said articles as are not actually in use are properly stacked clear of the line so as not to interfere with the safe running of trains.**

S.R.15.03/1. Permanent Way Materials and Tools - Loose permanent way material, tools, etc. must not be left by the side of the line where they might be made use of by ill-disposed persons to form dangerous obstructions. Such material must be collected at gate lodges or gang huts and subsequently taken into stations at the earliest opportunity. This does not apply in the case of remodelling of yards doubling and relaying where special watchmen are engaged.

**15.04. Inspection of Permanent Way and Works -**

- (1) Every portion of the permanent way shall be inspected daily on foot by some railway servant appointed in this behalf by special instructions:  
Provided that the interval between such inspections may, under approved special instructions, be increased to once in two days in the case of lines with light and infrequent traffic.**
- (2) All bridges and works including signals, signal wires, interlocking gear, points and crossings, overhead equipment and any other equipment affecting the safety and working of trains shall be inspected regularly in accordance with special instructions.**

S.R.15.04/1. Inspection of Permanent Way - The Keyman of each gang must walk daily over his length starting at sunrise and when necessary, more frequently than once daily. He must tighten or replace any loose keys or fastenings. On lines with light and infrequent traffic this patrolling by Key man may be once in two days under approved special instructions.

**15.05. Patrolling of lines -**

- (1) In addition to the inspection referred to in Rule 15.04, whenever any portion of a railway is likely to be endangered by abnormal conditions such as heavy rains, breaches, floods, storms and civil disturbances, the line shall be patrolled in accordance with special instructions.**

- (2) **When a railway servant deputed to patrol the line, notices any condition likely to affect the safety of trains or otherwise apprehends danger, he shall take action in accordance with special instructions prescribed for the purpose to protect the obstruction on line and thereafter inform the nearest Station Master by the most expeditious means.**  
**See also Rule 3.62.**

S.R.15.05/1.

- (1) Patrolling of line during the monsoon months -
- (a) The line is to be patrolled at night from the commencement until the close of the monsoon, ordinarily from June 1<sup>st</sup>, until October 31<sup>st</sup>, but the exact date of commencement and termination will be decided by the Assistant Engineer of the section.  
Patrolling should not be started until the monsoons actually arrive on any section.
- (b) Patrol charts, prepared by Divisional Engineers for the different sections, will be distributed to the Assistant Engineers, Sectional Engineer (P. Way) and Section Controller and a copy of the relevant portion of the chart will be supplied to each Station Master with instructions to -
- (i) record timings of arrival and departure of Patrolmen in the patrol books and initial them, and
- (ii) record timings of arrival and departure of patrolmen and their names in the station diary.
- (2) Copies of the patrol charts shall be sent to the loco shed Foreman by the Divisional Engineer.
- (3) (a) The Patrolman, whose beat commences at Station A, will present the patrol book in his possession to the Station Master A, who will enter there-in the date and time of arrival and departure of the patrolman and sign the book and return it to him. He will then walk over his beat and handover the patrol book to the patrolman of the next beat, and so on, until the book from station A continues its journey to Station 'B'.  
In a similar manner, a patrol book from Station B will be transmitted to station 'A'. The Station Master at A is to enter the date and time of arrival of patrolman in the book from Station B, sign it and hand it back to the patrolman for re-transmission to Station B. The Station Master at Station B will enter the date and time of arrival of the Patrolman in the book from station A, sign it and hand it back to the patrolman for re-transmission to station A. In this manner, each patrol book makes one journey in each direction per night.
- (b) If a Patrolman, on arrival at the end of the beat, does not find the next Patrolman waiting to take over his book, he must not wait, but must walk on until he meets him and should report the absence of any man from his beat, to the Gangmate in the morning.
- (c) Where stations are close together, the patrol books may be passed through one or more intermediate stations before it is returned to the original station. The Station Master of each intermediate station will enter the date and actual time of arrival and departure of the Patrolman and sign the book.
- (d) In order that the movement of the Patrolman can be checked accurately, it is essential that the Station Master on duty should record in the patrol book, the actual timings of the arrival at and the departure from the station. He should also record in his station diary the name of the Patrolman and the actual time of his arrival and departure from the station.
- (4) (a) Station Masters will see that the Patrolmen come on duty sober.
- (b) if a Patrolman does not turn up within 15 minutes of his scheduled arrival, the Station Master on duty will take the following action -

- (i) he must stop run-through trains proceeding into the block section.
  - (ii) he must advise the Station Master at the other end of the section to take similar action and also advise the Section Controller.
  - (iii) he must issue a Caution Order to all trains proceeding into the block section advising the Loco Pilot to be on the alert and specify a speed restriction of 40 kilometres per hour during the day when the visibility is clear, and 15 kilometres per hour during the night or during the day when visibility is not clear.
  - (iv) he shall also initiate action to ascertain the reason for the Patrolman not turning up by sending a Gangman, if available, in the concerned section.  
The Caution Orders will be issued until the Patrolman has arrived and reported that the line is safe for passage of trains.
- (5) Immediately danger is apprehended or when damage is observed, the Patrolman should protect the line, as indicated below -
- (a) In case where one Patrolman is employed on a single line section -
    - (i) Place a red light in a prominent position to warn a train which may be approaching from one direction; then run in the opposite and fix one detonator at 600 metres in case of Broad Gauge and 400 metres in case of Narrow Gauge/Metre Gauge and 3 detonators, 10 metres apart at 1200 metres in case of Broad Gauge and at 800 metres in case of Narrow Gauge/Metre Gauge from the affected point.  
If, while on his way to fix detonators, the Patrolman finds a train approaching the affected point, he should immediately place detonators on the line and stop the train by showing a danger signal.
    - (ii) return to the affected point and protect the other side with detonators similarly.
    - (iii) in the event of it being impossible to get to the other side or the affected point (as in a wash away), place a red light so that it can be seen from as great a distance as possible, and also display the flare signal.
  - (b) In cases where one Patrolman is employed on a double-line section -
    - (i) Place the red light in a prominent position, so as to warn an approaching train on one track, then run along the other track towards a possible approaching train and place detonators, as in sub para (a) (i) above; displaying the ignited flare signal.
    - (ii) run back and protect with detonators the other line on which the red light was shown; displaying ignited flare signal.
  - (c) In cases where two Patrolmen are employed -
    - (i) the second light should be lit and danger signals shown at once in both directions;
    - (ii) the two Patrolmen should then proceed in opposite directions, showing hand danger signals and displaying ignited flare signals and when at 600 metres in case of Broad Gauge and 400 metres in case of Narrow Gauge/ Metre Gauge from the point of danger each should clip one detonator on the rail; they should then proceed to a distance of 1200 metres in case of Broad Gauge and 800 metres in case of Narrow Gauge/ Metre Gauge from the point of danger and fix 3 more detonators on the rail, 10 metres apart.  
On the double line, the detonators must be placed on each line so that the approaching trains on both the directions are protected.
    - (iii) should the nature of the obstruction be such as to render it impossible for either of the Patrolmen to get across the gap, as for instance, wash away with a strong flood, one of them should show a danger signal and displaying ignited flare signal and endeavour to stop trains approaching the gap from the other side, while the other man should act as per para (6) below.

- (6) After protecting the line, as described above in para (5), in places where two Patrolmen are employed, one of the Patrolmen shall act as follows -
- (a) Proceed with all haste away from the affected point in the direction of the nearest station or if cut off by an impassable obstruction, to the station in the opposite direction and report the occurrence to the Station Master who will -
    - (i) stop trains entering the block section,
    - (ii) advise the Station Master at the other end of the block section, and
    - (iii) advise the Controller and all concerned.
  - (b) If on his way to the station, he passes gang quarters, report the occurrence to the Gangmate, who should proceed with his gang to the kilometreage and ensure proper protection and attend to repairs as necessary.

Where a single Patrolman is employed, the Patrolman shall remain at the place where he has fixed three detonators and send word about the danger through the first Railway employee or other person, he is able to contact at the spot itself.

S.R.15.05/2. Sectional Engineer (P.Way) of the section shall ensure that Patrolmen deputed are conversant with the use of flare signals. Each Patrolman should have one flare signal with him before proceeding for patrolling duties.

**15.06. Work involving danger to trains or traffic - A gang shall not commence or carry on any work which will involve danger to trains or to traffic without the previous permission of the Inspector of Way or Works, or of some competent railway servant appointed in this behalf by special instructions; and the railway servant who gives such permission shall himself be present to superintend such work, and shall see that the provisions of Rules 15.08 and 15.09 are observed: Provided that, in case of emergency, when the requirements of safety warrant the commencement of any such work before the said railway servant can arrive, the Gangmate may commence the work at once and shall himself ensure that provisions of Rule 15.09 are observed.**

S.R.15.06/1. Works involving interference with Traffic -

- (a) For the purpose of these rules, Engineering and Signal and Interlocking Works are classified under the following categories: -
  - (i) *Category A* - Works of normal routine, maintenance, such as lifting and packing, renewals of keys and bolts, isolated renewals of a chair, pot or sleeper, etc.
  - (ii) *Category B* - Works such as scattered renewals of pots or sleepers, oiling of bolts and greasing of fishplates, or painting of bridges or other works necessitating observance of hand signals or 'Stop' or 'Proceed with Caution' signals etc.
  - (iii) *Category C* - Works such as shifting and erection of signals, over-hauling of signal and interlocking frames, etc. which require the issue of a Green Notice but not blocking a running line.

Note: Works normally falling under this category but requiring power block on electrified sections would be treated as falling under category D below.

- (iv) *Category D* - Works involving breaking of the road, interference with signals and interlocking arrangements, temporary diversions, relaying or other works causing interference with traffic.
- (b) (1) Category A - Works of a normal routine nature etc. no special precautions are necessary and no advice need be given to any Operating Official.

(2) Category B -

- (i) Works under category (B) will be carried out according to programme of which all concerned will be advised and notices of speed restrictions, if any, or cautions to be observed will be advised to all concerned.
- (ii) The Sectional Engineer (P.Way) or the Official-in-charge of the work will issue messages to all the authorities mentioned in S.R.4.09/1 (ii). The message will detail the nature of the work, the kilometrages, the speed restriction and any other precautions required to be observed by the Loco Pilot and will also state if Engineering Speed Restriction Indicators in accordance with S.R.4.08-1 have been provided.
- (iii) The Station Masters will acknowledge the message to the Official-in-charge direct, copy to the Section Controller, who will also advise the stations concerned by a notice and obtain their acknowledgement. Before the work is taken in hand, the Sectional Engineer (P.Way) or the Official-in-charge will personally satisfy himself that all concerned have acknowledged the message. If acknowledgements are not received, the Work should not be taken in hand.
- (iv) Caution Orders will be issued to Loco Pilots/Guards of all trains in accordance with S.R.4.09/1.
- (v) The site of work will be protected in accordance with S.R. 15.09/1.
- (vi) On completion of the work, the Official-in-charge will issue a message advising all concerned, included in the original message of the completion of the work, and at the same time advise the Section Controller on the phone personally. On receipt of this message the issue of Caution Order will be discontinued unless otherwise specifically instructed.

(3) Categories (C) & (D) -

- (i) In all cases of Engineering or Signal and Interlocking works which involve the breaking of the open line or interference with signal and interlocking arrangements or observance of any other restrictions in normal working, the Engineering/Signal Department will arrange with the Sr.DOM for the issuing of a Green Notice in accordance with standing instructions.
  - (ii) The Green Notice referred to in sub-para (i) shall be valid for 3 months from the date of issue, i.e. the work notified must be taken in hand within 3 months. If the work cannot be commenced within 3 months, a fresh Notice must be issued. Once the work is taken in hand the Notice will be effective as long as the work is in progress.
  - (iii) The Sr. Divisional Engineer or the Sr. Divisional Signal & Telecommunication Engineer will be responsible for obtaining the sanction of the Commissioner of Railway Safety where necessary and sending to him the safety certificates on the completion of the works in accordance with standing orders.
  - (iv) Temporary Working Instructions for each phase of work shall be prepared jointly by Sr.DOM and Sr.DSTE/ Sr.DEN and a "lever pull chart/route setting chart" shall be prepared by S&T department.
  - (v) On receipt of advice from the Official-in-charge of the work, and before the work is taken in hand, the Sr. Divisional Operating Manager will issue an all concerned message to the Officials mentioned in the aforesaid Green Notice and will arrange for the blocking of the line on the date and time specified. This message will be issued so as to give not less than 3 days clear notice.
  - (vi) In the case of daily work on relaying, the message may cover a period of seven days, on the expiry of which a fresh message must be issued.
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- (vii) The Official Incharge of the work will issue message to all the authorities as per SR.4.09/1 (ii). The message will detail the nature of the work, the Km, the Speed restriction. Speed restriction indicator should also be provided. The work must not be taken in hand until acknowledgements have been received from the all concerned.
- (viii) Before the line is blocked for the work to be commenced, the Official-in-charge of the work will consult the Section Controller in regard to the movement of trains on the section, Section Controller after verifying that the Station Masters on either side of the block section on the single line and the Station Master of the block station in rear on the double line and the Notice stations for issuing Caution Orders for the Block section where the work is to be undertaken as indicated in S.R. 4.09/1 (iii) have received and acknowledged the message referred to in sub-para (iv) above, will issue a Train Notice to the Station Master concerned authorising him to block the line. On receipt of the message from the Section Controller, the Station Master will block the line and hand over a written memo to Official-in-charge of the work that the line has been blocked, and specify therein the duration of the block.
- (ix) Caution Orders will be issued by the Station Masters concerned in accordance with S.R. 4.09/1 to Loco Pilots/Guards of all trains proceeding towards the affected area.
- (x) The Official-in-charge will also arrange for the protection of the affected area in accordance with S.R. 15.09/1.
- (xi) A material lorry may be allowed to work in the block section for which the line has been blocked, but the Engineering Official-in-charge must ensure that before the line is declared safe for traffic, the lorry is removed off the track..

Only when specially mentioned in the Green Notice, material train will be allowed to work in the block section during the period of the block. This train will be given and Authority to proceed without Line Clear' and will be piloted by a responsible Engineering Official not below the rank of a JE (P.Way) and will work under his personal supervision.

- (xii) When Special Working Rules have to be issued, the Sr.DOM will arrange for their issue in good time. He will also be responsible for obtaining the approval of the Chief Operating Manager where necessary.
- (xiii) On completion of the work, the Official-in-charge will hand over to the Station Master a safety certificate for resumption of normal traffic and specify therein whether any speed restriction is to be observed or Caution Order to be issued.

On receipt of this certificate, the Station Master will advise the Section Controller who will advise all concerned specified in the Green Notice, cancel the block and resume normal working. In addition, if necessary, the Officer-in-charge will also hand over a certificate stating that the block section has been cleared of the material train.

- (xiv) In the case of urgent repairs or renewals when previous notice can not be given for the issue of a Green Notice or when, for any other reason, special precautions at short notice are necessary, the Sectional Engineer (P.Way) or other Official-in-charge of the work must advise the Controller and issue a written message to the Station Master giving not less than 4 hours notice before the work is to be taken in hand.
- (xv) On receipt of this advice, the Station Master will obtain permission from the Section Controller and at the same time advise the Station Master at the other end of the block section and also the Notice Stations for issuing Caution Orders for that block section as indicated in S.R.4.09/1(ii) and obtain their acknowledgement, on receipt of which the Station Master will block the line in accordance with sub-para (vii)

above, and advise the Engineering Official-in-charge in writing to take the work in hand. The Station Master will also stop all trains and issue Caution Orders where necessary until acknowledgements from Station Masters of Notice stations are received.

(c) General -

- (i) On the electrified area before any slewing alterations to superelevation, excavation or levelling of tracks are commenced, 72 hours previous notice shall be given to the Traction Engineer (Distribution), so that the overhead equipment may be adjusted to conform to the new conditions if necessary. If it is necessary to carry out any work, which involves risk of coming in contact with the overhead equipment, a permit must be obtained from the Traction Engineer (Distribution).
- (ii) Rail Bonds - Any deficiency or defect noticed in Rail Bonds including cross bonds, connections to impedance bonds, structure bonds and Traction Substation negative feeders shall be reported immediately to the Traction Engineer (Distribution) and Sr.DSTE. All bonds removed by the staff of the Engineering Department shall be replaced by the staff of the Engineering Department and all such removals and replacements shall be reported, to the Traction Engineer (Distribution) and Sr.DSTE without delay.

S.R.15.06/2. Blocking the line on the field telephone – When for special reasons it is decided to permit blocking of the line on the field-telephone the following procedure will be followed in lieu of that laid down in para (vii) of S.R. 15.06/1 (b) (3). This procedure is permissible on Controlled Sections only.

- (i) The name of the Engineering Official in-charge of the work, who shall not be below the rank of a Sectional Engineer (P.Way) must be mentioned in the Green Notice. The Railway Official so nominated and no other person will be authorised to obtain blocks on the field telephone.
- (ii) The all concerned message issued by the Sr.DOM will mention the name of the Engineering Official in-charge of the work and will also state that the block will be allowed on advice from the section on the field telephone.
- (iii) On an application to the Sr.DOM the Official in-charge of the work will be issued a Private Number sheet to be used as follows. On completion of the work the Private Number sheet must be returned to the Sr.DOM.
- (iv) Before leaving the station for the site of the work, the Engineering Official-in-charge will consult the Section Controller who will advise him the approximate time and nominate the last train after which the block will be allowed.
- (v) After the passage of the nominated train the Engineering Official in-charge will arrange to protect the place of obstruction in accordance with S.R. 15.09/1 and after having satisfied himself that the obstructed area is properly protected, will call the Section Controller on the field telephone, give his name and designation and also reference number of the Green Notice under which the work is being carried out.
- (vi) The controller will then call the Station Master at each end of the block section and ascertain from them if the block section is clear of all trains.
- (vii) The Engineering Official-in-charge will then issue a message on the field telephone as follows -

<p>Section controller _____ S.Ms. A and B No. _____ Ref. D.R.M's          Message No. _____ of _____ Line (Up or Down line in          the case of double line) between stations A and B will be blocked from          _____ to _____ hrs.</p> <p>Private No _____</p> <p style="text-align: right;">Name _____          Designation _____</p>
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- (viii) The Section Controller will then issue a message to the Station Masters A and B and also to the Engineering Official in-charge as follows -

S.Ms. A and B copy – S.E (P.Way).

T.N.No. \_\_\_\_\_. You are authorised to block the line (Up or Down line in the case of double line) between stations A and B from \_\_\_\_\_ to \_\_\_\_\_ hours.

Section Controller (Name) \_\_\_\_\_

- (ix) The Station Master concerned will acknowledge the Controller's message supported by a Private Number. The Controller will make a note in his chart in the 'Remarks' column and record the name of the Engineering Official in-charge and the private Numbers received from the Engineering Official and the Station Masters.
- (x) On receipt of the above message from the Controller the Station Master concerned will block the line in accordance with the rules and issue a message to the Engineering Official-in-charge, copy to the Section Controller, on the telephone as follows -

From S.M. \_\_\_\_\_  
 To – S.E(P.Way).

\_\_\_\_\_ No \_\_\_\_\_ Line (Up or Down line in the case of double line) has been blocked from \_\_\_\_\_ to \_\_\_\_\_ hours.  
 Private No \_\_\_\_\_

S.M. (Name) \_\_\_\_\_

- (xi) The Engineering Official in-charge will then commence the work. He will keep himself in constant touch with the Section Controller.
- (xii) On completion of the work and after the track is made safe for the passage of trains, the Engineering Official in-charge will contact the Section Controller on the field telephone again and advise him of the completion of the work. The Section Controller will call the Station Masters at both ends of the block section and the Engineering Official in-charge will then issue a message in the following form -

S.Ms. A and B copy – Section Controller No. \_\_\_\_\_ Your No. \_\_\_\_\_  
 \_\_\_\_\_ Track safe for traffic aaa Train working may now be resumed (speed restriction, if any to be mentioned) aaa Private No. \_\_\_\_\_

Designation \_\_\_\_\_  
 Name \_\_\_\_\_

- (xiii) On receipt of the above message the Section Controller will issue a Train Notice to the Station Masters concerned and authorise them to cancel the block and resume normal working, and obtain their acknowledgements.

- (xiv) When the Control Phone is interrupted or where the control is not in operation, the procedure laid down in para (vii) or S.R.15.06/1 (b) (3) must be complied with strictly.

**15.07. Work in thick, foggy or tempestuous weather impairing visibility - In thick, foggy or tempestuous weather impairing visibility, no rail shall be displaced and no other work which is likely to cause obstruction to the passage of trains shall be performed, except in cases of emergency.**

**15.08. Precautions before commencing operations which would obstruct the line -**

- (1) **No person employed on the way or works shall change or turn a rail, disconnect points or signals, or commence any other operation which would obstruct the line until Stop signals have been exhibited and where prescribed detonators used; and if within station limits, he has also obtained the written permission of the Station Master and all necessary signals have been placed at 'On':**

**Provided that the exhibition of Stop signals may be dispensed with, if such operations are performed or carried out after the necessary signals, other than Automatic Stop Signals, have, in addition to being placed in the 'On' position, been disconnected, so that such signals cannot be taken 'Off' again until it is safe to do so and the corresponding adequate distance beyond such signals is kept clear:**

**Provided further that when the area of work is controlled by Automatic signals, the railway servant in charge of the work shall post a competent railway servant at an adequate distance in rear of the site of the work to stop and warn any train approaching the affected area.**

- (2) **No work involving removal of any rail from the track shall be undertaken without traffic block, except as provided in sub-rule (3).**
- (3) **In emergent cases, the engineering official not below the rank of permanent way inspector grade III undertaking such operations shall first bring the train to stop and advise the Loco Pilot of the train about the need to stop the train through a written memorandum. The engineering official shall simultaneously arrange to send a message to the Station Master for the need to block the track and obtain a written confirmation of the same. In such emergent cases, works shall be commenced only after advising the Loco Pilot and bringing the train to stop.**

S.R.15.08/1. If the line where Automatic signalling is in use has to be blocked against traffic, the Official-in-charge will clamp the special short circuiting device across the two outer copper wires of the impedance bond at the entering end of the track where the work is in progress. This will put the Automatic signal to 'On'. In addition to this a railway servant with detonators and hand signals must be stationed not less than 20 metres outside the signal concerned. He shall place one detonator on the line and display a red hand signal.

S.R.15.08/2. (a) Work involving the removal of rails, renewal of switches, crossing or sleepers or any work which will affect the safe working of trains in station limits, must not be commenced by the Engineering officials in-charge of the work without previous advice in writing to the Station Master on duty and except in an emergency in the case of interlocked points, to the Section Engineer (S&T) as well. Acknowledgement of the Station Master must be received before commencement of work. Such acknowledgement shall not be given until the relevant signals have been placed at 'ON'.

(b) Before commencing work on a line, which cannot be isolated from other running lines, the Engineering officials should provide the prescribed hand signals, detonators and banner flags, at point not less than 30 metres on both sides of the work.

(c) On completion of the work, the Sectional engineer (P.Way) shall issue a notice of cancellation in writing to the Station Master and, where necessary, to the Section Engineer (S&T) as well.

(d) If it becomes necessary to pass a train during the time the works is in progress or when points are disconnected, the engineering official in charge of the work will be responsible for restoring the track to a condition to ensure the safe passage of the train and will give a written assurance to the Station Master that he has done so. The Station Master will then be responsible to ensure that the points are correctly set and locked as required by rules for the passage of the train. The engineering officials shall not again interfere with the track until he has received a written intimation from the Station Master that work may be resumed.

(e) If, in an emergency, it becomes necessary to carry such work, after sunset the provision for protection of the site as detailed above must be complied with except that red lights must be exhibited in the direction of the approaching trains.

S.R.15.08/3. In an emergency, when it is necessary on consideration of safety, the authorised Engineering official may commence such work after protecting the lines before issuing notice to the Station Master concerned, if the work is likely to be prolonged, he shall notify to the Station Master concerned as soon as possible. The location of banner flags, detonators and hand signals must be selected so as to avoid stopping of trains as far as possible on continuous steep rising gradient.

#### **15.09. Showing of signals -**

- (1) Whenever due to lines being under repair or due to any other obstruction it is necessary to indicate to the Loco Pilot that he has to stop or proceed at a restricted speed, the following signals shall be shown and, where prescribed, detonators used, if on a double line in the direction from which trains approach, and if on a single line in each direction -**
  - (a) When the train is required to stop and the restriction is likely to last only for a day or less - A banner flag shall be exhibited at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge and three detonators shall be placed, 10 metres apart, at a distance of 1200 metres on the Broad Gauge and 800 metres on the Matre Gauge and Narrow Gauge from the place of obstruction. In addition, Stop hand signal shall be shown at a distance of 30 metres from the place of obstruction, at the banner flag and at a distance of 45 metres from the three detonators. The railway servant at the place of obstruction shall give proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.**
  - (b) When the train is required to stop and the restriction is likely to last for more than a day - A stop indicator shall be exhibited at a distance of 30 metres from the place of obstruction and a caution indicator at 1200 metres on the Board Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the place of the obstruction. In addition, termination indicators shall be provided at the place where a Loco Pilot may resume normal speed.**
  - (c) When the train is not required to stop and the restriction is likely to last only for a day or less - Proceed with caution hand signals shall be exhibited at a distance of 30 metres and again at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by special instructions, where required. The railway servant at the place of obstruction shall give proceed hand signal to indicate to the Loco Pilot when he may resume normal speed after the train has been hand-signalled past the place of obstruction.**
  - (d) When the train is not required to stop and the restriction is likely to last for more than a day - A speed indicator shall be exhibited at a distance of 30 metres from the place of obstruction and again a caution indicator at a distance of at least 800 metres from the place of obstruction. The distance of 800 metres shall be suitably increased by special instructions, where required. In addition, termination indicators shall be provided at the place where a Loco Pilot may resume normal speed.**

- (2) In case the place of obstruction is within station limits –
- (a) the provision of sub-rule (1) may be dispensed with if the affected line has been isolated by setting and securing of points or by securing at 'On' the necessary manually controlled Stop Signal or signals, and
  - (b) approach signals shall not be taken 'Off' for a train unless the train has been brought to a stop at the first Stop signal, except in cases where the Loco Pilot has been issued with a Caution Order at a station in rear, informing him of the obstruction and the details thereof.
- (3) If the place of work is situated in Automatic Signalling territory, and if the distance between the place of obstruction and the Automatic signal controlling the entry of train in the signalling section concerned is less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and provided the Automatic Signal has been secured at 'On' -
- (a) the banner flag and three detonators referred to in clause(a) of sub-rule (1) may be provided at 90 and 180 metres respectively; and
  - (b) the caution indicator referred to in clause(b) of sub-rule (1) may be dispensed with.
- (4) The shapes and sizes of the indicators referred to in clauses (b) and (d) of sub-rule(1) may be prescribed by special instructions.

S.R.15.09/1. Hand signalling arrangements for Engineering works on Open Line -

- (a) Proceed with caution hand signals - When proceed with caution hand signal has to be shown in terms of G.R.15.09 (1) (c), these signals will be exhibited as follows, in the direction of approaching train on the double line and on both sides of the cautious driving area on the single line (see sketch).
- (i) At a minimum distance of 30 metres (Position B) from the nearest point of the affected area, a Railway servant with 'Proceed with Caution' hand signal.
  - (ii) At a distance of 800 metres (Position A) beyond the nearest point of the cautious driving area, a Railway servant with 'Proceed with Caution' hand signal.
  - (iii) At a distance of 600 metres on Broad Gauge and 400 metres on Narrow Gauge/ Metre Gauge (Position C) beyond the farthest point of the Cautious driving area a Railway servant with 'Proceed' hand signal.
  - (iv) If an occasion arises for the train to be brought to a dead stop short of the affected area before passing over at dead slow speed, the railway servant at position B will display a red hand signal and after the train comes to a stand he will permit the train to proceed after obtaining instructions from the Engineering Official at the site not below the rank of Gangmate/ Keyman and will then give 'Proceed with Caution' hand signals as necessary.
  - (v) If the view from the direction of approaching train is not clear, additional Flagman will be posted to exhibit 'Proceed with Caution' hand signals as necessary.
- (b) Hand signals for Engineering obstruction - When danger signals have to be shown short of an obstruction in terms of G.R.15.09/(1)(a), following hand signals have to be shown in the direction of approaching train on the double line and on both sides of obstruction on the single line. (see sketch).
- (i) At a distance of 30 metres from the obstruction, a hand danger signal (Position C)
  - (ii) At a distance of 600 metres for Broad Gauge and 400 metres for Narrow Gauge/ Metre Gauge from the place of obstruction one banner flag (position B). A Railway servant equipped with hand danger signal shall also be posted at the banner flag.
  - (iii) At a distance of 600 metres in case of Broad Gauge and 400 metres in case of Narrow Gauge/ Metre Gauge from the banner flag 3 detonators 10 metres apart on line. A Railway servant showing hand danger signal shall be posted 45 metres ahead from the nearest detonator (Position A).

- (iv) On receiving orders from the official-in-charge of the work to allow the approaching train to pass, the railway servant at position A shall remove the three detonators and allow the train to proceed cautiously. The person at position B shall also remove the banner flag and exhibit 'Proceed with Caution' hand signal. The last person at position 'C' will continue exhibiting the danger hand signal to an approaching train until it has come to a stand, and the signature of the Loco Pilot of the train obtained in the restriction book maintained for the purpose. After satisfying from the official in-charge of the work that the train can be allowed to pass, he shall exhibit 'Proceed with Caution' signal and shall allow train to proceed. When the train has passed, the banner flag, detonators and the hand signals will be replaced.
  - (v) In case of double or quadruple lines 'Proceed with Caution' signals as in S.R. 15.09/1(a) above, must also be shown on the adjoining line or lines. In the case of relaying work in progress Loco Pilots of trains while approaching the zone of obstruction on the adjoining line or lines shall whistle continuously to warn the staff at work spot. In the case of other major works like regirdering, the official in-charge of the work shall specify the speed restriction to be observed by Loco Pilots of trains on the adjoining line or lines in the zone of obstruction. The prescribed engineering speed restriction indicators shall also be provided.
- (c) Obstruction in the vicinity of or inside station limits - When an obstruction is in the vicinity of or inside station limits and the engineering signals overlap the fixed signals, the Operating and Engineering officials on the spot will decide how best to protect the point of obstruction. It is not sufficient to maintain signals governing the approach of train towards the obstruction in the 'On' position.
- A banner flag and detonators must also be placed on the line in accordance with S.R.15.09/1(b) wherever necessary, preceding the point of obstruction. All trains proceeding towards the obstruction must be brought to a stand at the first Stop signal or banner flag. The banner flag and detonators may then be removed, signals taken 'Off' and the train then hand signalled or piloted past the obstruction as necessary. This must be done only under the personal instructions of the Engineering official in-charge. After the train has passed complete, the banner flag and detonators must be replaced.
- (d) The Engineering official in-charge of the work is personally responsible for satisfying himself that instructions in regard to the protection of the line are strictly carried out. No person other than Engineering official in-charge of the work shall give signals for removal of the banner flag and this work must not be delegated to any of his subordinates.
  - (e) Diagrams explaining the method of protection on single and double lines as laid down in clauses (a) and (b) are shown in Diagrams I, II, III and IV.

DIAGRAM ILLUSTRATING THE POSITION OF 'PROCEED WITH CAUTION' SIGNALS

I. SINGLE LINE

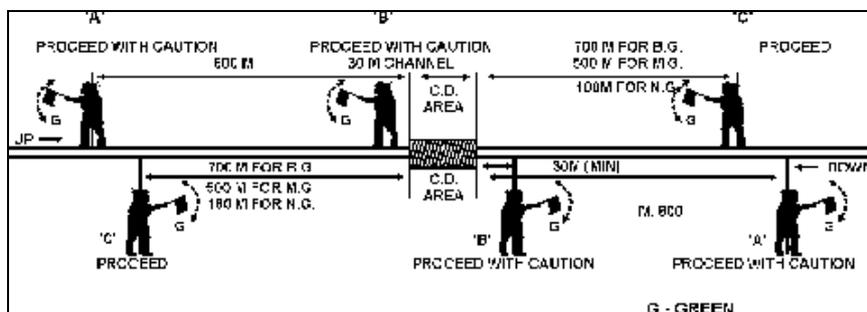


DIAGRAM ILLUSTRATING THE POSITION OF 'PROCEED WITH CAUTION' SIGNALS

II. DOUBLE LINE

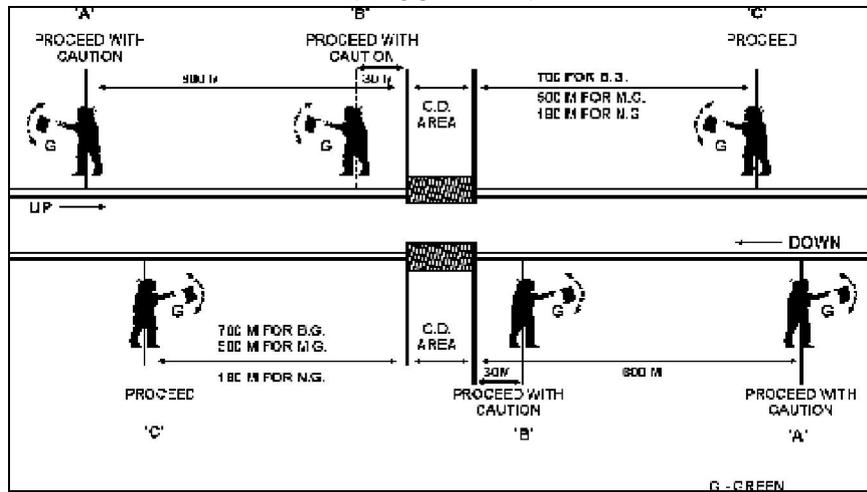


DIAGRAM ILLUSTRATING THE POSITION OF DANGER SIGNALS

III. SINGLE LINE

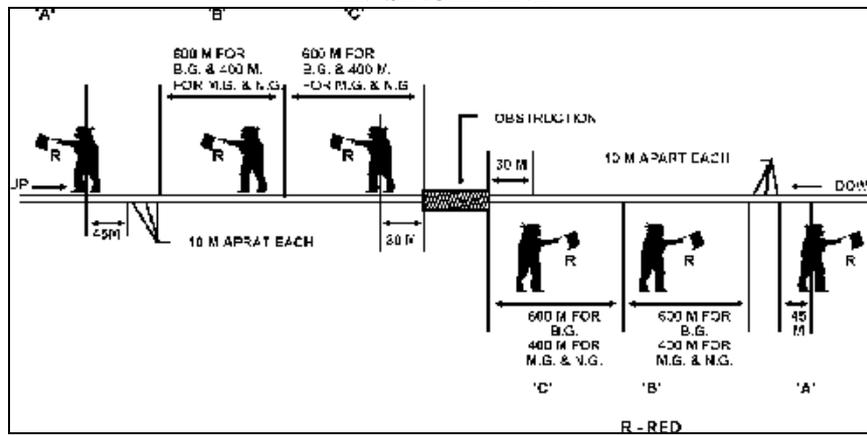
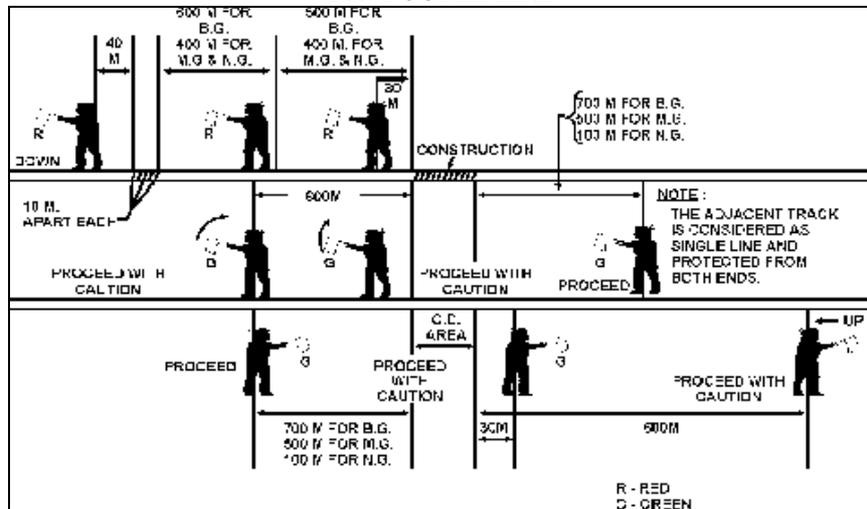


DIAGRAM ILLUSTRATING THE POSITION OF DANGER SIGNALS

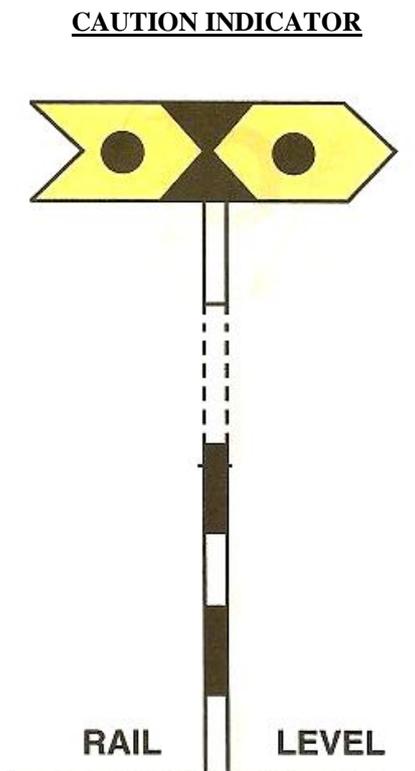
IV. DOUBLE LINE



S.R.15.09/2. Temporary Engineering Indicators - In the case of such works which cannot be completed on the day on which they are taken in hand and which necessitate cautious driving during both day and night, the Engineering official responsible under S.R.15.06/1 shall arrange to display following indicators.

S.R.15.09/3. Temporary Engineering Indicators -

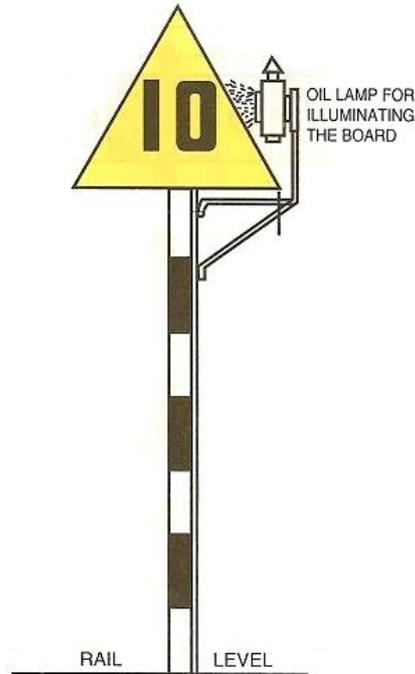
- (1) The first indicator shall be fixed 800 metres from the point where restriction of speed has actually commenced. Provided that on the Broad Gauge when the trains are required to stop dead, this distance should be increased to 1200 metres instead of 800 metres. This indicator shall be in accordance with the diagram shown and shall consist of a horizontal board 1400 mm. long and 400 mm. wide, fish tailed at one end pointed at the other, and painted yellow and black. This board shall be fixed on a 2.0 mtr. high post (from the rail level to the bottom of the Board) painted with 300 mm. high bands of white and black.



This indicator shall be provided both for the permanent and temporary restrictions and the indicator, when used for temporary restrictions, shall display at night two horizontal yellow lights to approaching trains or shall be provided with luminous paint/ fluorescent tape.

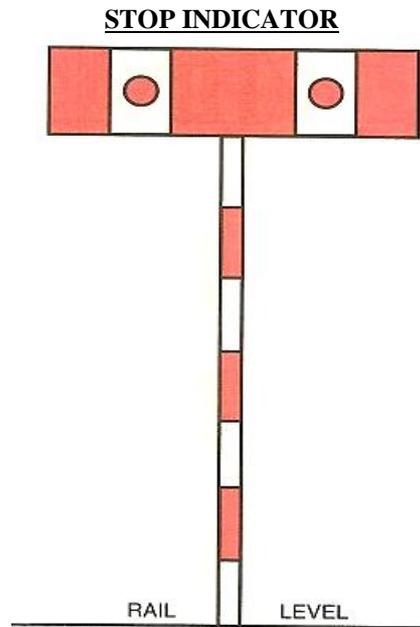
- (2) The second indicator shall be either a speed indicator or a stop indicator and shall be fixed 30 metres from the point of commencement of restriction.

**SPEED INDICATOR**



- (i) In the case of restrictions without 'Stop Dead' speed indicator shall be provided. This speed indicator shall be in accordance with the diagram shown above and shall consist of a yellow equilateral triangular boards with 1 mtr. sides and 300 mm. high and 40 mm thick black figures indicating the speed at which the train may proceed. The Board shall be fixed on a 2.0 mtr. high post (from the rail level to the bottom of the a board) painted with 300 mm. high bands of white and black. This indicator shall be illuminated at night by fixing a hand signal lamp in front of it as shown in the diagram or provided with luminous paint / fluorescent tape.
- (ii) In the case of restriction with 'stop dead' a stop indicator in accordance with the diagram shown below should be provided. This indicator shall consist of a horizontal board 1400 mm. long and 400 mm. wide and painted with red and white vertical strips.

The board shall be fixed on a post 2.0 mtr. High (from the Rail level to the bottom of the board) painted with 300 mm. high bands of white and black. This indicator shall display two red lights at night or provided with fluorescent paint / luminous tape.



A Signalman shall be provided for signalling. As soon as the train stops the signal man shall obtain signature of the Loco Pilot on the 'restriction book' (specimen given below) and allow the train to proceed by showing green hand signal light at night and green hand signal flag during the day.

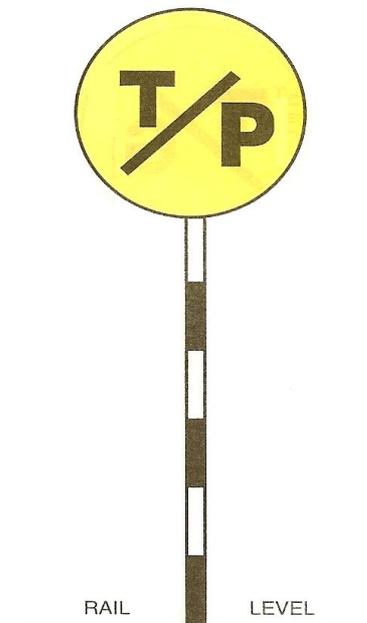
The restriction book shall be in the following form: -

Engineering stop indicator at Km. \_\_\_\_\_ Restricted speed \_\_\_\_\_.

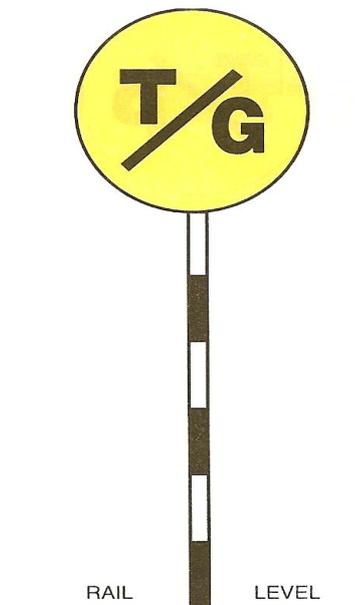
DATE	TRAIN No.	TIME	SIGNATURE OF LOCO PILOT

Note:- The above will be filled up by the Loco Pilot of the train.

**TERMINATION INDICATOR  
FOR PASSENGER TRAINS**



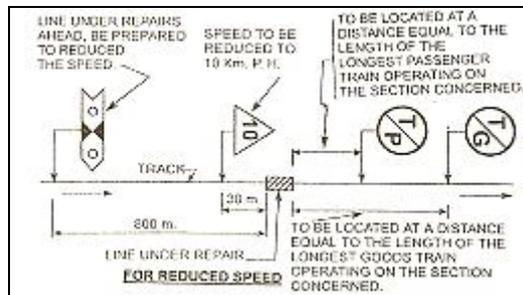
**TERMINATION INDICATOR  
FOR GOODS TRAINS**



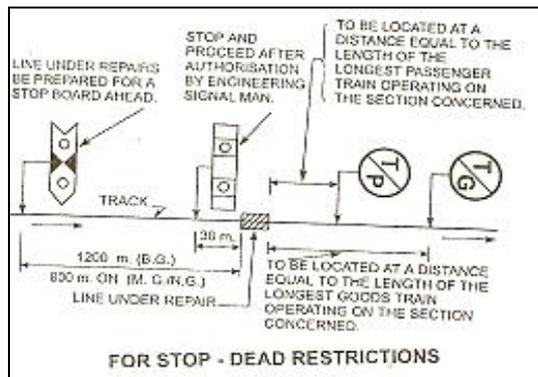
- (3) The third indicator shall be termination indicator (T/P) for passenger trains and fourth indicator shall be a termination indicator (T/G) for Goods trains. These indicators shall be fixed at a distance equal to the length of the longest passenger / goods train running on the section concerned beyond the end of the portion of line under restriction. (T/G) shall be fixed normally 670 meter beyond the point up to which restriction is so be observed which is considered adequate to cover all the goods trains of average length.

The indicators shall be in a accordance with the diagram shown above and shall consist of one meter diameter disc painted yellow bearing 250 mm high and 40 mm thick letter 'T' and 'G' in black. The board shall be fixed on a post 1650 mm (from the rail level to the bottom of the disc) and shall be painted with 300 mm high bands of white and black. The termination indicators should be illuminated at night by a fixed hand signal lamp as in case of speed indicator or should be provided with luminous paint/fluorescent tape. The guard of a Passenger / Goods trains shorter than the longest Passenger/Goods train, will signal to the Loco Pilot as brake van has passed over the restricted length and then the Loco Pilot may resume normal speed after receiving this signal. In the case of light engines or single unit Cars the Loco Pilots will resume normal speed after clearing the restricted length.

- (4) The details of fixtures of Engineering indicators for reduced speed shall be as under :-



- (5) The details of fixtures of Engineering indicator for stop dead restriction shall be as under:-



- (6) All indicators shall be placed on left hand side as seen by the Loco Pilot.
- (7) For intermediate track, triple or multiple lines, engineering indicators should be fixed between tracks to within 300 mm from rail level to avoid infringement of the standard dimensions.

S.R.15.09/4. In an emergency, when it is necessary on consideration of safety, the authorised Engineering Official may commence such work after protecting the lines before issuing notice to the Station Masters concerned, if the work is likely to be prolonged, he shall notify to the Station Master concerned as soon as possible. The location of banner flags, detonators and hand signals must be selected so as to avoid stopping of trains as far as possible on continuous steep rising gradient.

S.R.15.09/5. Permanent speed restriction indicators: -

- (a) For permanent speed restriction in force as notified in the working time table, indicators are to be erected, in the same manner and at sites as temporary engineering indicators to indicate to Loco Pilots where such restrictions are to be observed. These indicators should not be lit at night.
- (b) Where the speed over the facing points at a station is less than the speed sanctioned at other stations on the same section, a permanent speed indicator should be fixed on the post of the first approach signal of the station.

S.R.15.09/6. Periodical notice of Engineering restriction: - For works involving restrictions of speed of trains the Sr.DEN will arrange publication in the periodical gazette of the Railway, furnishing the following details: -

- (i) Names of block stations on either side of the site of work for the purpose of the issue of caution orders;
- (ii) Kilometrage of the site or work;
- (iii) The restricted speed limit and / or stops to be observed by the Loco Pilots;
- (iv) Nature of the work being under taken or reasons for the restriction.
- (v) Probable duration of the restriction.

**15.10. Assistance in protection of trains - Every railway servant employed on way or works shall, on the requisition of the Guard of a train or the Loco Pilot thereof, render assistance for the protection of the train.**

**15.11. Gangmate in each gang - Each Inspector of Way or Works shall see that in every gang employed in his length of line there is a competent Gangmate.**

**15.12. Knowledge of signals and equipment of gang - Each Inspector of Way or Works shall see -**

- (a) that every Gangman and Gangmate employed under him has a correct knowledge of hand signals and detonating signals; and
- (b) that every gang employed in his length of line is supplied with a permanent way gauge, two sets of flag signals, two hand signals lamps and twelve detonators, in addition to such other tools or implements as may be prescribed by special instructions.

**15.13. Inspection of gauges, signals, tools and implements -**

- (1) Each Inspector of Way or Works shall at least once in every month inspect the permanent way gauges, flags, signal lamps, detonators, tools and implements supplied to the gangs under clause (b) of Rule 15.12 and ascertain whether the above equipment is complete and in good order.
- (2) He shall also see that any defective or missing articles are replaced.

**15.14. Responsibility of Gangmate as to safety of line - Each Gangmate shall -**

- (a) see that his length of line is kept safe for the passage of trains;
  - (b) that the signals supplied to him under clause (b) of Rule 15.12, are kept in proper order and ready for use;
  - (c) that the men in his gang each have a correct knowledge of hand signals and detonating signals;
  - (d) endeavour to prevent any trespassing by persons or cattle on his length of line or within the fences thereof, and
  - (e) when repairing, lifting or lowering the line or when performing any other operation which shall make it necessary for a train to proceed cautiously, himself be present at the spot and be responsible that the caution signals prescribed in Rule 15.09 are shown.
-

**15.15. Blasting - No railway servant employed on the way or on any works shall carry on any blasting operations on or near the railway except as permitted by special instructions.**

S.R.15.15/1. In normal circumstances, blasting operations, the effect of which may cause danger to the line or trains thereon, shall only be carried out with the prior sanction of Sr.DEN who will be responsible for ensuring that instructions for protective measures are issued before the work is commenced. In emergent circumstances where such works have to be carried out immediately for the urgent restoration of traffic, or to prevent an accident, Section Engineer (P.Way) may commence operations without prior sanction, and shall himself be responsible for taking such measures as may be necessary for the protection of trains.

**15.16. Putting in or removing points or crossings - Except in cases of emergency, no railway servant shall put in or remove any points or crossings otherwise than as permitted by special instructions.**

S.R.15.16/1. Alterations or additions in Transportation Yards -

- (a) Except in cases of emergency, no alteration or addition or connection whether permanent or temporary shall be made to a transportation yard, without first obtaining the approval of the Divisional Railway Manager.
- (b) When in an emergency, any points, crossings or signals are interfered within station limits, without previous notice to the Divisional Railway Manager, the Station Master must be immediately informed. If at an interlocked station any running line is affected, the Station Master will treat the line controlled by the such points, crossings or signals which are interfered with as non-interlocked. An advice must be sent at once to the Section Engineer (S&T), Assistant Signal and Telecommunication Engineer and the Sr.DOM.
- (c) When extensive alterations are to be made in a station yard, special working rules must be drawn up by the Sr.DOM for the working of the yard during the progress of the work.
- (d) Alteration to running line: - No alteration shall be made to a running line as defined in general rules 1.02 (47) or to any track or other points protecting a running line without the previous permission of the Commissioner of Railway Safety except in case of emergency.

**15.17. Duties of Gangmate and Gangman when apprehending danger - If a Gangmate or Gangman considers that the line is likely to be rendered unsafe, or that any train is likely to be endangered in consequence of any defect in the way or works or of abnormal rain or floods or any other occurrence, he shall take immediate steps for securing the stability of the line and the safety of trains, by using the prescribed signals for trains to proceed with caution or to stop, as necessity may require; and shall as soon as possible report the circumstances to the nearest Station Master and the Inspector of Way or Works.**

S.R.15.17/1. In the event of a rail/weld failure, the Keyman/Gangmate/P.Way Supervisor or Cold Weather Patrolman, shall, after protecting the line, make necessary emergency repairs to the track and pass traffic at the speed 10 KMPH (Maximum). The temporary/ permanent repairs to track shall be done by the Sectional Engineer (P.Way). as soon as possible and restored traffic at normal speed.

**B. The Working of Lorries, Trolleys and Motor Trolleys.**

**15.18. Distinction between trolley, lorry and motor trolley -**

- (1) A vehicle which can be lifted bodily off the line by four men shall be deemed to be a trolley and any similar but heavier vehicle shall be deemed to be a lorry.
- (2) Any trolley which is self-propelled, by means of a motor is a motor trolley.
- (3) A trolley shall not, except in cases of emergency, be used for the carriage of permanent way or other heavy material; and when a trolley is so loaded, it shall be deemed, for the purposes of these rules, to be a lorry.

S.R.15.18/1. RULES FOR WORKING OF A TROLLY/MOTOR TROLLY/ LORRY -

- (1) Subject to their being certified competent, the following officials and staff are permitted to use trollies/motor trollies/lorries -
  - (i) Trollies - All Officers and Section Engineer of the Engineering and Signal and Telecommunication departments and such Officers and staff of the Operating, Commercial and OHE departments as may be required.
  - (ii) Lorries - All Section Engineer of the Engineering and Signal and Telecommunication department.
  - (iii) Motor Trollies - All Officers of the Engineering, Signal & Telecommunication, Operating and Commercial Departments and such Inspectors, as may be prescribed and Motor Trolley Loco Pilots.
- (2) (i) No Railway servant is permitted to work a trolley/Motor trolley or lorry unless he is certified to do so by the authorised officer. Each certificate of competency issued shall be valid up to 31<sup>st</sup> December from the date of issue. Certificate issued from June to December may be made valid for the next calendar year also.
- (ii) The authorised officer for issue of a competency certificate for push trolley/ lorry as also to hold necessary examination in the relevant rules shall be not lower than an Assistant Officer of the Engineering, signal or operating department for all staff of his department. The authorised officer for issuing competency certificates to officers shall not be lower than a Sr. Scale Officer of the department.  
The authorised officer shall grant a competency certificate in the following form:-

Shri.....S/o.....(Designation)	
.....at station.....is found fully conversant with the sections on which he has to use a push trolley/ Lorry and also with all the relevant rules in respect of use of push trolley/Lorry as well as the latest changes made in them and is authorised to work a Push Trolley/ Lorry on .....section (each section to be separately mentioned)	
This certificate is valid up to 31 <sup>st</sup> December .....	
Station .....	Signature..... (Authorised Officer)
Dated.....	Designation.....
The competency certificate referred to above should be renewed for each calendar year.	

- (iii) The authority to the Loco Pilot of Motor Trolley shall be granted according to rules quoted below:- Officers or staff requiring the permission to drive a Motor Trolley will apply in writing to the DRM. In case of Divisional Officers or to the COM/ Chief Engineer/CSTE in case of Hd. Qrs. Office with the following certificates: -

“ I (name)..... Working in the capacity of (Designation).....at station.....hereby certify that I am fully conversant with all the sections on which I have to use the motor trolley and also conversant with all the rules in respect of driving motor trollies as well as the latest changes made in them and undertaken to comply strictly to these rules. In case of my failure to comply with these rules I shall alone be held responsible.	
Signature.....	
Date.....	

The applicant will then be given an oral test by the Sr. DOM/DOM/DRM in the Division and by COM/Dy.COM in the Head Quarters Office. The competency certificate shall be made valid up to 31<sup>st</sup> December from the date of issue. Certificate issued from June to December may make valid for the next Calendar year also.

- (iv) The Competency certificate referred to sub paras (ii) and (iii) for trolley/motor lorry or lorry may be further renewed for one calendar year, at each time, on receipt of the following certificate.

“I (name).....working in the capacity of (Designation)..... at Station..... hereby certify that I am fully conversant with all the sections on which I had to use my trolley/motor lorry/lorry and also with all the rules in respect of driving trollies/motor trollies/lorries as well as the latest changes made in them and undertake to confirm to these rules. In the event of my failure to comply with these rules, I shall alone be held responsible.

Signature.....

Date.....

- (v) Supervising officers and officials should test the permit holders in their knowledge relating to driving of trollies/motor trollies/ lorries as often as possible.
- (vi) In the event of an officer or staff getting transferred from one station to another it is necessary for him to acquaint himself with all the rules in regard to any special conditions obtaining on any of the sections within his jurisdictions and to furnish the required certificate to the DRM.
- (3) The permit will only be issued after the person, in whose name this issued, has been examined and declared to be conversant with the rules for running of trollies/motor trollies/lorries. The permit shall be valid for a period of one year from the date of issue. It shall, therefore, be renewed annually after the person holding it has been examined as mentioned above.
- (4) Each trolley/motor trolley/lorry must have marked on it the number, designation, and code initials of the Headquarters station of the official, to whom it is allotted, painted in white letters conspicuously.
- (5) Whenever a trolley/motor trolley/lorry be placed on the platform for being loaded on a train or for any other purpose, it should be placed parallel to the track, properly locked and in charge of a Railway servant. It should be so placed as not to come in the way of passengers and railway staff.
- (6) (a) Trollies or Lorries shall always be pushed and not pulled. Use of sails or any other unauthorised aid for their propulsion is strictly prohibited.
- (b) The Official incharge of the lorry/trolley/motor trolley, while approaching a level crossing, should look out for road traffic and ensure safe passage of his lorry/trolley/motor trolley.

- (7) EQUIPMENT OF TROLLIES/LORRIES - The following equipment must be provided on a trolley/lorry when placed on running line:
- (i) During the day a red flag fixed to a staff of not less than 180 CMs in height placed on the trolley frame so as to be clearly visible.
  - (ii) During the night, a light shall be placed to show conspicuously, on the double line, white to the front and red to the rear, and on single line, red both to the front and the rear.
  - (iii) In addition to the equipment prescribed in Rule No. 15.20 each trolley/ lorry shall be provided with (a) 3 red flags and 3 Hand Signal lamps for single line. (b) 1 Hand signal lamp and one red flag, for double line.
  - (iv) Every trolley and lorry must be fitted with an efficient hand brake in terms of Rule No.15.21.
  - (v) A portable field telephone in working order must be provided on each material lorry.  
Note: Lorries are not permitted to work in ghat sections.
- (8) EQUIPMENT OF MOTOR TROLLIES - A motor trolley must be provided with -
- (i) A motor trolley must be provided with equipment as given in Rule No.15.20 and 15.21.
  - (ii) A head light which will throw a white light towards the front. A red light must also be shown conspicuously towards the rear. When there is no head light, during the night, a light showing conspicuously, on the double line white to the front and red to the rear, and on the single line, red both to the front and the rear, should be exhibited.
- (9) MAXIMUM NUMBER OF PERSONS ON A TROLLEY AND MOTOR TROLLEY - The total number of persons including trollymen, which can be carried on a trolley, must not exceed 10.  
On a motor trolley, the total number of persons including trollymen must not exceed 7 in the case of 4 HP and 10 in the case of 6 HP motor trollies.
- (10) MINIMUM NUMBER OF TROLLYMEN -
- (a) *On a trolley* -
    - (i) When a trolley is run under block protection, it must be accompanied by not less than 4 trollymen.
    - (ii) When running without block protection, a trolley must be accompanied by 4 trollymen on double or single line. On such part of the line where, on account of curves, cuttings or tunnels the view is obstructed, or on length where there are frequent train services, extra men must be taken from the gangs, for pushing the trolley. One or more of the regular trollymen, who have passed the vision test, will be used for protecting the trolley in the rear on the double line, and on either side on single line.
    - (iii) On electrified sections, 5 trollymen must accompany a trolley.
  - (b) *On a motor trolley* - A motor trolley must, in all cases, be manned by not less than 4 able bodied trollymen.
  - (c) *On a lorry* - The minimum number of men accompanying a lorry must be 8 exclusive of Flagmen. It should be increased as required by the official accompanying lorry depending on the type of material loaded, nature of gradient, curves, cutting etc. The official incharge of the lorry shall ensure that the men deputed for protection of the lorry are permanent employees who are well conversed with the rules for protection of material lorry.
- (11) When a motor trolley is running, there shall be at least 2 persons seated in front.
- (12) WORKING OF TROLLIES -
- (a) *At night time* - During night, all trollies must work under block protection except in a grave emergency.

- (b) *Working without block protection* -
- (1) When it is proposed to work a trolley outside station limits without block protection, the official-in-charge of the trolley shall ascertain the whereabouts of trains that he is likely to encounter on the section before he places the trolley on the line.
  - (2) Where due to curves, cuttings, or gradients, a clear view is not available for a distance of 1200 metres; the trolley must be protected in accordance with G.R. 15.27 and S.R. 15.27/1.
  - (3) When the nature of the line is such that the Flagmen cannot be seen by the person in-charge of the trolley, the latter must arrange, before entering the section, to take with him sufficient Gangmen with hand signals and banner flag so that the required number of Flagmen can be provided for repeating the signals to the person in-charge of the trolley.
- (c) Special precautions should be taken while working trollies without block protection due to sharp curves, cuttings, tunnels etc. are as under: -
- (1) The official in-charge of the trolley shall advise in writing to the Station Master on duty, where he intends to place the trolley on line, specifying the period the trolley will work in the block section.
  - (2) On receipt of this advice, the Station Master will advise the official in-charge of the trolley about the particulars of running of trains, and will also issue a message to the Station Master at the other end of the block section and also to the coaching train stopping stations, on either side, to this effect. On the double line, the message need only be issued to the stations in rear according to the line on which the trolley is working. The Station Master receiving the message will acknowledge receipt.
  - (3) The Station Master at the station at either end of the block section where the trolley is working, or the last stopping station, in the case of coaching train must issue Caution Orders to the Loco Pilots of all trains proceeding into the block section where the trolley is working, until the trolley clears the block section.
  - (4) Immediately the trolley has cleared the block section the Station Master on duty at the station where the trolley has arrived, will cancel the message referred to in sub-clause (2) above after which the issue of Caution Orders to Loco Pilots will be discontinued.
- (d) Trollies Running Together- When two trollies are running together in the same direction, they must be kept at a sufficient distance apart so that the rear trolley may be stopped within a safe distance if a Trollyman should slip from the front trolley or if the front trolley should be stopped suddenly. On the level, or on an uphill gradient the distance between light trollies should not be less than 100 metres and on a down grade or with a strong wind behind, it should not be less than 180 metres.

(13) WORKING OF MOTOR TROLLIES -

- (a) A motor trolley must run under block protection and should be treated and signalled as a train.
- A motor trolley/trollies, however, is/are permitted to follow a train/motor trolley at an adequate distance after advising the Station Master concerned, in accordance with the procedure laid down in para 14-(g) below.
- The official in-charge of the motor trolley may, during day light and if visibility is good, pass the Outer signal at danger, after coming to a stop, and proceed with caution and stop at the next Stop signal (facing points), until hand signalled by a member of the station staff in uniform into a vacant line. A motor trolley may also be received, after stopping the same, on an occupied line, on hand signals from the cabin or facing points, as convenient.
-

(b) BREAKDOWN OF MOTOR TROLLEY -

- (i) In the event of a complete breakdown of a motor trolley in the section, the trolley must be removed clear of the tracks and the Station Master of the nearest Station advised in writing to clear the section. The token or Line clear Ticket, if any, must also be sent with the memo.

The same procedure must be observed if, for any other reason, a motor trolley is removed from the tracks while in the section. Once a motor trolley has been removed from the line, it must not be replaced on the line unless the line has been blocked for it.

- (ii) Before a motor trolley is replaced on the line, intimation in writing must be sent to the nearest Station Master stating in which direction the trolley will proceed. The Station Master will, when the train service permits, arrange to block the line between the two requisite stations from a specified hour or after the passage of a named coaching or goods train. A manuscript authority to proceed will then be sent to the Officer in-charge of the motor trolley in the following form -

“Line will be blocked for your motor trolley, from \_\_\_\_\_  
 hours \_\_\_\_\_ minutes after the passage of  
 \_\_\_\_\_ train until the arrival of your trolley at  
 \_\_\_\_\_”

A carbon copy of this message should be kept by the issuing Station Master. On the single line, Token or Line Clear Ticket must also be sent by the Station Master.

(c) Working of Motor Trolleys on single Line sections where Tokenless Block instruments are provided -

- (i) The Station Master of the block station from which the motor trolley has to leave, will obtain Line Clear from the Station Master at the other end of the block section on block telephone without the operation of block instruments. He will then prepare an authority to enter the block section in manuscript in duplicate in the form given below, which will indicate the Private Number obtained in support of the Line Clear obtained from the station in advance. One copy of the same will be handed over to the official-in-charge of the motor trolley.

From S.M. \_\_\_\_\_

To,  
 Official -in-charge,  
 Motor Trolley No.....

You are permitted to take your motor trolley into the block section between stations \_\_\_\_\_ and \_\_\_\_\_ and on arrival at \_\_\_\_\_ station, you are required to sign the Train Signal Register in token of your having arrived \_\_\_\_\_ station with the motor trolley intact.

Private Number \_\_\_\_\_  
 Date \_\_\_\_\_

Station Master.

- (ii) While leaving the station, an authority on Form T/369(3b) will be issued to pass the last Stop signal in the ‘On’ position. The relevant starting signals, when free, may, however, be taken ‘Off’
- (iii) At the receiving station, the Station Master will arrange for the reception signals to be taken ‘Off’

- (iv) On arrival at the other end of the block section, the official-in-charge of the motor trolley will deliver the authority to the Station Master with the endorsement that the motor trolley has arrived complete and sign with date and time on it. The authority will be retained by the Station Master and pasted in the station diary.
  - (v) Out and in reports of the motor trolley will be given by the Station Masters concerned.
  - (vi) To cancel Line clear for a motor trolley, messages will be exchanged between the Station Masters with Private Numbers. "Cancel last signal" signal will then be given.
- (d) Working of Motor Trolleys double line where Lock and Block instruments have been provided - When a Motor Trolley has to enter the block section, the Station Master of the station from which the motor trolley has to leave will obtain Line Clear from the Station Master at the other end of the block section on telephone attached to the block instruments, as the block instruments are not operated.
- He will then issue an authority on form T/369(3b) to the official-in-charge of the motor trolley, to pass the last stop signal in the 'On' position. The Private Number received from the Station Master in advance will be recorded on T/369(3b) and it should be clearly endorsed that 'Line Clear' has been obtained from the station in advance. An authority to enter the block section on the prescribed form given in sub-clause 14(c)(i) shall be given to the official-in-charge of the motor trolley.
- At the receiving station, the Station Master will arrange for the reception signals to be taken 'Off'. On arrival at the station in advance, the official-in-charge of the motor trolley will deliver the authority to the Station Master with the endorsement that the motor trolley has arrived complete and sign with date and time on it. The authority must be retained by the Station Master at the receiving end and pasted in the station diary. The Station Master will then clear the block section supported by a Private Number.
- To cancel Line Clear for a motor trolley, messages will be exchanged between the Station Master with Private Numbers. 'Cancel last Signal' signal will then be given.
- (e) Speed of motor trolley - The speed of motor trolleys while passing over points and crossings, irrespective of whether the trolley is running on the straight or turn-outs, shall not exceed 15 KMPH.
- (f) Spring Points -
- (i) The Station Master of the station situated short of the place where spring points are located, shall issue Caution Order to the person in-charge of the motor trolley giving the location of the spring points.
  - (ii) The motor trolley shall stop dead in the rear of the spring points and then proceed over them only when they have been correctly set and clamped. Boards warning the existence of spring points are provided.
- (g) A Motor Trolley following a Train or another Motor Trolley -
- (i) A motor trolley may follow a fully vacuum/air braked train or another motor trolley, in the same block section during day light hours and clear weather only, both on the single and double line sections. When motor trolley follows a train or another motor trolley at minimum distance of half a kilometre should be kept with the train or trolley to be followed.

- (ii) For this purpose, the official-in-charge of the motor trolley shall obtain a “Motor Trolley Permit” from the Station Master concerned before entering the block section. The Motor Trolley Permit shall be prepared in duplicate by carbon process. One copy will be retained by the Station Master issuing the permit and the other will remain in the custody of the official-in-charge of the motor trolley till the next block station in advance is reached, where this permit shall be handed over to the Station Master on duty.
- (iii) The last Stop Signal shall not be taken ‘Off’ for the motor trolley following a train or another motor trolley. An authority on Form T/369(3b) to pass the same in the ‘On’ position shall be issued to the official in-charge of the following motor trolley.
- (iv) After complete arrival of the train or the preceding motor trolley at the station in advance the Station Master may receive the following motor trolley/trolleys by taking off signals on an unoccupied line, or take off the calling on signal or green hand signal the motor trolley/trolleys on an occupied line, as convenient.
- (v) The ‘Out’ report for the preceding train or motor trolley shall be given and acknowledged in the usual manner and advice shall also be given at the same time of the number of trolleys that will follow.

The time of departure of each of the following motor trolleys shall be given (together) to the station in advance after the last motor trolley has left the station in rear. The “IN” report of the preceding train or motor trolley shall not be given, until the last following motor trolley has arrived. The time of arrival of the preceding train or motor trolley and the time of arrival of each of the following motor trolleys supported by a Private Number shall be given together and recorded in the Train Signal Register of the despatching and receiving stations.

Where token instruments are in use the token received from the preceding train or motor trolley shall be kept in the safe custody of the Station Master on duty and inserted in the block instrument, only after the arrival of the last following motor trolley.

- (vi) If there is more than one motor trolley to follow a preceding train or motor trolley, the Station Master will prepare and hand over a “Motor Trolley Permit” to each official-in-charge and will add the words, ‘Last Motor Trolley’ on the permit of the official-in-charge of the last motor trolley.

Each Official-in-charge of a motor trolley will hand over the trolley permit to the Station Master on duty at the station in advance. The official-in-charge of the last motor trolley besides handing over the trolley permit to the Station Master on duty at the station in advance, will also sign the Train Signal Register in token of his motor trolley having arrived intact indicating the time of arrival.

The Station Master of the station in advance will only then clear back the block section.

The Official-in-charge of the last motor trolley will ensure that his trolley is the last one to arrive at the station, even if the order of the other trolleys is changed enroute due to any reason.

- (vii) In the event of a breakdown of the preceding motor trolley both on the single and double lines, the provisions contained in sub-clause (b)(i) and (ii) of Clause 14 above must be complied with.

In the case of a breakdown of the following motor trolley in section, it must be removed clear of the track and the official-in-charge must send an intimation in writing to the Station Master of the nearest station to this effect along with the ‘Motor Trolley Permit’.

If the breakdown of the preceding motor trolley, this advice may be sent to the Station Master of the station in advance through the official-in-charge of the following motor trolley.

On the single line section, the official-in-charge of the preceding motor trolley will also hand over to the official-in-charge of the following motor trolley, Line Clear Ticket or token as the case may be, which shall be handed over to the Station Master at the station in advance by the official-in-charge of the following motor trolley in addition to the ‘Motor Trolley Permit’ in his possession.

Once a motor trolley has been removed from the track it must not be replaced unless the line has been blocked for the purpose.

- (h) Working of Motor Trolley during total interruption of communications - If there is total interruption of communications, the Station Master on duty must advise the official-in-charge of the motor trolley of the same and the motor trolley shall be worked in the section in accordance with S.Rs.6.02-3 and S.R. 6.02-4.

14. Working of Lorries -

- (a) *Working of a lorry within station section* - Whenever a lorry has to work within station section, the SE (P.Way) or other official in-charge of the work will advise the Station Master in writing specifying the period during which it will work. The Station Master on duty, when granting Line Clear' or authorising the taking' off' of signals for the reception and despatch of trains, will personally satisfy himself that the official-in-charge of the lorry is advised and that the lorry does not fall the path of trains.

(b) *Running of lorries* -

- (i) A lorry shall normally be run during day light hours.
- (ii) A lorry may be worked without block protection when the official-in-charge, before putting a lorry on the line, has ascertained from the Station Master on duty whether line clear can be obtained for the lorry without causing detention to a train, and if no detention would be caused, Line Clear should be obtained. If line clear cannot be obtained without causing detention to a train, the official-in-charge of the lorry, after considering the urgency of the work to be done, should decide whether to place the lorry on the line without line clear being obtained or wait until line clear can be obtained for it.
- (iii) Notwithstanding the provisions above, a lorry shall invariably be worked under block protection when -
- (1) it is necessary during an emergency to run it at night or when the visibility is restricted due to dust, storm, fog, rain or any other cause.
  - (2) it is loaded with rails or girders.
  - (3) it is loaded with specially heavy materials which cannot be readily unloaded, and
  - (4) When it is working in certain sections with heavy curves, cuttings or on ghat sections.
- (iv) In circumstances other than those mentioned in item (iii) above, the following precautions must be taken while working a material lorry without block protection, sub-para (2) to (g) are retained.

- (1) When the official-in-charge intends to place the lorry on the line in mid section, he shall issue a message on field telephone to the Station Masters of the stations on either side on single line and the Station Master of the station in rear on double line indicating the exact kilometrage where he will be placing the lorry on the line. This message shall be supported by a Private Number.

The Station Master who receives notice about the lorry to be put on line shall inform the official-in-charge of the lorry about particulars of trains which are expected to run on the section and also the time at which the lorry can be placed on the line.

When permission has been asked to keep the lorry on line from the block section, the Station Masters shall block the line and issue a message to the official-in-charge of the lorry intimating that the line has been blocked for the lorry. This message shall be supported by a Private Number.

The official-in-charge of the lorry shall under no circumstances keep the lorry on the line unless he has obtained acknowledgement in writing from the Station Master of the station at which the lorry enters the section that he has advised the Station Masters concerned in regard to the issue of Caution Order, or a message on telephone supported by a Private Number to the effect that the line has been blocked when the lorry is kept on line from the section.

TROLLY/LORRY NOTICE

(Working without Line Clear)

Notice No. \_\_\_\_\_ Station \_\_\_\_\_  
 Date \_\_\_\_\_ To,  
 Station Master \_\_\_\_\_ (Station) Trolley/Lorry No. \_\_\_\_\_  
 \_\_\_\_\_ is required to work between \_\_\_\_\_ and \_\_\_\_\_  
 \_\_\_\_\_ stations at \_\_\_\_\_ kms. from \_\_\_\_\_  
 \_\_\_\_\_ hrs. to \_\_\_\_\_ hrs. It will leave \_\_\_\_\_  
 \_\_\_\_\_ station at \_\_\_\_\_ hours of this day for \_\_\_\_\_  
 \_\_\_\_\_ station/Km No. \_\_\_\_\_.

Official-in-charge

To,  
 The official-in-charge of Trolley/Lorry

Trains due to arrive/pass this station at \_\_\_\_\_ hours have actually done so except:  
 Train No. \_\_\_\_\_ is \_\_\_\_\_ minutes late.

I have exchanged advice with \_\_\_\_\_ station and shall issue Caution Order to all Loco Pilots until I receive advice of the removal of the trolley/lorry.

\*The line has been blocked for your Trolley/Lorry between \_\_\_\_\_ station to \_\_\_\_\_ station on Up/Down line and the block will be removed only on receipt of the removal report of the Trolley/Lorry.  
 Private No. \_\_\_\_\_

\_\_\_\_\_  
 Station Master

\* Applicable when permission is given on the telephone.

- (2) On receipt of this notice, the Station Master will indicate the particulars of trains running on the section as shown in the form.
- (3) The Station Master will then issue a message to the Station Master of the station at the other end of the block section indicating the time and kilometre where the material lorry will be working.
- (4) On receipt of this message, the Station Master concerned will issue Caution Orders mentioning the particulars as indicated under sub-clause (4) above to all trains proceeding into the block section in which the lorry is working without block protection.
- (5) The above Caution Orders will continue to be issued till the removal report in the prescribed form or through the field telephone supported by a Private Number has been received from the Sectional Engineer (P. Way), or the Official-in-charge of the material lorry and the 'lorry removed from the section 'signal has been received and acknowledged.

## REMOVAL REPORT

Reference: Trolley/Lorry Notice No. \_\_\_\_\_ Date \_\_\_\_\_

Trolley/Lorry No. \_\_\_\_\_ arrived at \_\_\_\_\_ was removed from the track at Km \_\_\_\_\_ at \_\_\_\_\_ hours.

Removal Report received at \_\_\_\_\_ hours.

Station Master \_\_\_\_\_ Station.

\*Private No. \_\_\_\_\_

\_\_\_\_\_  
Official-in-charge

\*To be given when the removal report is given on field telephone.

(6) A material lorry must be protected in accordance with G.R. 15.27 and S.R.15.27/1.

(7) On receipt of this message (of Lorry working without block protection), the Station Master concerned will issue Caution Orders as indicated under sub-clauses (4) and (5) above, to all trains proceeding into the block section in which the lorry is working to restrict the speed so as to enable the Loco Pilot to stop short of the Km, where the lorry might be working, on observing the danger signal.

In case, there is a gradient of 1 in 200 or steeper, additional speed restrictions must be recorded in Caution Order issued to the Loco Pilots of goods/material trains proceeding in that direction. The speed restriction shall be B.G/MG 40 KMPH and N.G. 25 KMPH.

(8) When temporary single line working is introduced on a double line section, no material lorry shall be allowed to work in that section except in case of an emergency.

(c) **LORRIES FOLLOWING ONE ANOTHER** - When lorries follow one another, a minimum distance of 100 meters should be kept. This should be increased by the official-in-charge of the lorry as required in accordance with gradient and other local conditions.(d) **WORKING OF LORRY DURING TOTAL INTERRUPTION OF COMMUNICATIONS** - Material lorries shall not be allowed to enter a block section when there is total interruption of communications. If, however, in a grave emergency, it is necessary for a material lorry to enter a block section when there is total interruption of communications, it is the responsibility of the official-in-charge of the material lorry to have it protected in accordance with the provision of G.R. 15.27 and S.R.15.27/1 and sub-clauses (c) (ii) and (iii) of Clause (12) above.

(e) On double line, material lorries must go out on the right line and if necessary, they must push back on the same line. On no account a lorry must be transferred from one line to another in a block section.

(15) **ADJACENT RUNNING LINES NOT TO BE FOULED** -

(i) When working a trolley, motor trolley or lorry on the double line section, if the same is removed from the rails in the block section, it should be removed in such a way that the adjacent running lines are not fouled or infringed.

(ii) In the case of lorries working in the block section on double line, when material is unloaded, it should be ensured that no running line is fouled.

(16) **WHEN VISIBILITY IS IMPAIRED** - when a trolley or lorry is working on a block section during day without block protection, if the visibility is impaired due to rain, dust, storm, fog, or any other cause, the trolley or lorry should be removed from the line and should not be replaced until the visibility is adequate.

- (17) UNAUTHORISED PERSONS ON TROLLEY/MOTOR TROLLEY / LORRY - Persons authorised to work a trolley, motor trolley or lorry shall not take anyone with them on trolley/motor trolley/lorry unless employed on the Railway, and then only if duty requires, it, except in case of sickness or other emergency, when a report should be made to their Divisional Officers.
- (18) CONVEYANCE OF MOTOR TROLRIES, TROLRIES AND LORRIES IN TRAINS - Motor trolries and trolries may be carried in the brakevans of goods and mixed trains, and also by passenger trains if there is room and provided the loading and unloading can be done without delaying the passenger train and they are not likely to cause damage to the packages in the van. Lorries will ordinarily be carried in the brakevans of goods and mixed trains and on sections where goods services are insufficient, by passenger trains, provided the conditions for the carriage of trolries and motor trolries by passenger trains are fulfilled.

S.R.15.18/2. Working of Dollys -

- (1) Subject to their being certified competent, all Inspectors and Maistries of Permanent way are permitted to use Dollys.
- (2) No Railway servant shall use a Dolly unless he is in possession of a permit signed by an Engineering Official not lower in rank than that of Sr.DEN/DEN.
- (3) The permit will only be issued, after the person, in whose name, it is, issued, has been examined and declared to be conversant with the rules for working of dollys. The permit shall be valid for a period of one year from the date of issue. It shall, therefore, be renewed annually after the person holding it has been examined as mentioned above.
- (4) Each dolly must have marked on it, the number, designation and code-initials of the head quarter station of the official, to whom it is allotted, painted in white letters, conspicuously.
- (5) Dollys should always be pushed and not pulled.
- (6) Dollys shall normally be worked during day light hours. If it is necessary to work at night, it shall be worked under block protection.
- (7) The official in charge of the dolly, while approaching a level crossing should look out for road traffic and ensure safe passage of his dolly.
- (8) Equipment of Dollys -
  - (i) Following equipment should be provided on Dollys when placed on running line.
    - (a) During the day time a red flag, fixed to a staff of not less than 180 cm. in height should be displayed on each dolly so as to be clearly visible.
    - (b) During the night, a light shall be placed to show conspicuously, on the double line, white to the front and red to the rear and on single line, red both to the front and the rear.
  - (ii) A portable field telephone in working order must be carried with the in-charge of dolly when dollys are put on track.
- (9) Minimum number of Dollymen - A minimum number of 3 dollymen should man each dolly exclusive of flagmen to protect them with flags and detonators.
- (10) System of working of Dollys -
  - (a) At night time all dollys must work under block protection.
  - (b) Working of Dollys within station section - Whenever a dolly has to work within Station section, the official in-charge of the Dolly will advise the Station Master in writing specifying the line and the period during which it will work. The Station Master on duty before authorising taking 'off' of signals for reception and despatch of trains, will personally satisfy himself that the official in-charge of the dolly is advised and that the dolly does not foul the path of trains. Button/Slide/Lever Collars shall be used on those buttons/slides/levers governing the signals of the line on which dolly would be working. The speed of Dolly will not exceed 3 KMPH at any time.

- (c) Working Dollys in Block section without Block protection -
- (i) Dollys shall normally be worked without block protection. When it is proposed to work dollys outside the station section, without block protection, the official incharge of the dolly shall ascertain the whereabouts of trains that he is likely to encounter on the section before he places the dolly on the line.
  - (ii) Where due to curves, cuttings or gradients, a clear view is not available for a distance of 1200 Meters, the dollys must be protected in accordance with G.R.15-27 and SR 15-27/1.
  - (iii) When the nature of the line is such that the flagmen cannot be seen by the person incharge of the dollys, the later must arrange, before entering the section, to take with him sufficient number of Gangmen with hand signals and banner flags so that the required number of flagmen can be provided for repeating the signals to the person in charge of the dollys.
  - (iv) If the visibility is impaired due to rain, dust, storm, for or any other cause the dolly shall be removed from the line and should not be replaced until the visibility is adequate.
  - (v) On the sections enlisted under Rule SR 15-18/1(12)(d)-(i) special precautions should be taken as in SR 15-18/1(12)(d)-(ii) 1 to 4, when working dollys without block protection due to sharp curves, cuttings tunnels etc.
  - (vi) Dollys shall 'invariably be worked under block protection when -
    - (a) it is necessary during an emergency to work it at night
    - (b) the visibility is restricted due to dust, storm, fog, rain or any other causes.
  - (vii) During total interruption of communications or when TSL working is in force on a Double line section Dollys shall not be allowed to enter a block section. In case of extreme emergency, if it is indispensable to work dollys, the person incharge of dollys should arrange for protection as in G.R.15.27 and S.R.15.27/1 and ensure that the speed of the dolly does not exceed 3 KMPH at any time.
- (11) Mode of working Dollys -
- (i) For carrying of single rail, 2 rail dollys shall be used and for transporting a 3 rail panel 6 number of rail dollys shall be deployed. The minimum number of dollymen shall be 3 (three) per dolly.
  - (ii) Rail dolly should run on the cess rail in case of double line to ensure safety of adjacent track.
  - (iii) As soon as the train is sighted, the dolly shall be instantly released by the release lever arm from the running line thus allowing the rail to drop on the ballast shoulder far away from the running line. Simultaneously the rail dolly is turned over and all infringements cleared before the passage of the train. All these operations normally should not take more than 2 minutes.
- (12) On Ghat sections, rail dollys are not to be worked.

**15.19. Red flag or light to be shown - Every lorry or trolley when on the line shall show a red flag by day and a red light by night, during thick, foggy or tempestuous weather impairing visibility or in a tunnel in the directions from which a train may come.**

**15.20. Equipment of trolley, lorry or motor trolley - Each trolley, lorry or motor trolley shall have the following equipment -**

- (a) two hand signal lamps,
- (b) two red and two green hand signal flags,
- (c) sufficient supply of detonators,
- (d) a chain and a padlock,

- (e) a copy of the Working Time Table and all correction slips and appendices, if any, in force on that section of the railway over which the trolley, lorry or motor trolley is to run,
- (f) a motor horn and a search light (for motor trolley only),
- (g) two banner flags (for lorry only), and
- (h) such other articles as may be prescribed by the Railway Administration in this behalf.

**Note:** The Official in charge of the trolley, lorry or motor trolley shall also be in possession of a watch in addition to the prescribed equipment.

**15.21. Efficient brakes -** No lorry or trolley shall be placed on the line unless it is fitted with efficient brakes.

**15.22. Qualified person to be incharge of lorry or trolley when on the line -**

- (1) No lorry or trolley shall be placed on the line except by a qualified person appointed in this behalf by special instructions.
- (2) Such qualified person shall accompany the lorry or trolley, and shall be responsible for its proper protection and for its being used in accordance with special instructions.

**15.23. Attachment to train prohibited -** No lorry or trolley shall be attached to a train.

**15.24. Time of running -** A lorry shall ordinarily be run only by day and when the weather is sufficiently clear for a signal to be distinctly seen from an adequate distance, which shall never be less than 800 metres.

**15.25. Motor Trolley -** A motor trolley shall only be run in accordance with special instructions.

**15.26. Protection of trolley on the line -** The qualified person in charge of a trolley shall, before leaving a station, ascertain the whereabouts of all approaching trains, and shall, when a clear view is not obtainable for an adequate distance.-

- (a) on a single line, in both directions, or
- (b) on a double line, in the direction from which trains may approach, take such precautions for the protection of his trolley as may be prescribed by special instructions.

**15.27. Protection of lorry on the line -**

- (1) Whenever it is proposed to place a lorry, whether loaded or empty on the line, the line shall, if it is possible to do so, without interference with the working of trains, be blocked under the rules for working of trains.
- (2) Except under approved special instructions, when the line has not been so blocked and a lorry whether loaded or empty is placed on the line, the lorry shall be protected -
  - (a) on double line, by one or two men as required, at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge, carrying a banner flag across the track and another man plainly showing a Stop hand signal at a distance of not less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the lorry in the direction from which trains may approach, or
  - (b) on single line, by one or two men as required, following and preceding the lorry at a distance of 600 metres on the Broad Gauge and 400 metres on the Metre Gauge and the Narrow Gauge, carrying a banner flag across the track and another man plainly showing a Stop hand signal at a distance of not less than 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge from the lorry on either side.

- (3) Each man so following or preceding the lorry at a distance of 1200 metres on the Broad Gauge and 800 metres on the Metre Gauge and the Narrow Gauge shall be provided with detonators and place three on the line, 10 metres apart, immediately the lorry comes to a stand for the purpose of either unloading or loading or should any train be seen approaching, and continue to display the Stop hand signals.
- (4) The man or men carrying the banner flag shall immediately fix the banner flag across the track immediately the lorry comes to a stand or a train is seen approaching and continue to display the Stop hand signal.
- (5) In all cases where the Flagmen in advance or in rear cannot be kept in view from the lorry, additional intermediate Flagmen shall be posted to relay the signals.
- (6) The Stop Signals and detonators shall not be removed until the Flagmen have received the orders to withdraw them from the official-in-charge of the lorry.

S.R.15.27/1. Protection of Lorry on the line - When a lorry, whether loaded or empty, is placed on the line, without block protection, the lorry shall be protected:

- (a) On double line, by two men at a distance of 600 metres on Broad Gauge and 400 Metres in M.G. & N.G., carrying a banner flag held with staff of 2 metres height across the track and another man plainly showing a danger hand signal at a distance of not less than 1200 metres on B.G. and 800 metres on M.G. & N.G. from the lorry in the direction from which trains may approach.
- (b) On a single line, by two men, following and preceding the lorry at a distance of 600 metres on B.G. and 400 metres on M.G. & N.G. carrying a banner flag held with staff of 2 metres height across the track and another man plainly showing a danger hand signal at a distance of not less than 1200 metres on B.G. and 800 metres on M.G. & N.G. from the lorry on either side.
- (c) Each man so following or preceding the lorry at a distance of 1200 metres on B.G. and 800 metres on M.G. & N.G. shall be provided with detonators and place three on the line 10 metres apart immediately the lorry comes to a stand for any purpose or should any train be seen approaching, and continue to display the danger hand signal.
- (d) The men carrying the banner flag shall immediately fix the banner flag across the track immediately the lorry comes to a stand or a train is seen approaching, and continue to display the hand danger signal.
- (e) The danger signals and detonators shall not be removed until the flagmen have received the orders to withdraw them from the official-in-charge of the lorry.
- (f) When the nature of the line is such that the flagmen cannot be seen by the person in charge of the lorry, the latter must arrange, before entering the section, to take with him sufficient gangmen with hand signals so that the required number of flagmen can be provided for repeating the signals to the person in-charge of the lorry.
- (g) Station Masters at both ends of the block section enter remarks in the Train Signal Register showing the time at which the lorry entered and cleared the block section.

**15.28. Lorries and trollies out of use - A lorry or trolley when not in use, shall be placed clear of the line, and the wheels thereof be secured with a chain and padlock.**

