

EASTERN RAILWAY



**Guidelines to Drivers
On Safe
Train Operation**

**SAFETY DEPARTMENT
EASTERN RAILWAY HEAD QUARTER**

GUDILINES ON DRIVERS FOR SAFETY **ON TRAIN OPERATION**

Based on seriousness of accidents in the recent past all over the Railways, the following items are listed as guidelines. You are requested to counsel all the Running Staff on these topics and make them understand the importance of these guidelines.

1) WORKING OF TRAINS AUTOMATIC SIGNALING TERRITORY:

Ref : GR 9.02 - The aim of stopping at an automatic signal at danger is that the driver should be able to stop short of an abstraction once he start from signal at restricted speed he must

- I) Control the speed to 15 KMPH/8 KMPH or less as prescribed**
- II) The driver should use his judgment to reduce the speed further if he feels that train is going on a failing gradient or approaching a curve.

The driver's job is his capability in stopping the train short of an obstruction.

Ref : GR 9.10 - Protection of a train stopped in an automatic block signalling section is laid down elaborately in GR & SR 9.10 and in automatic section one detonator should be placed at 90 Mtrs from the train on the way out and similarly 2 (Two) detonators 10 Mtrs apart, not less than 180 Mtrs from the train.

Ref: GR 9.15 - Details have been laid down, in the relevant GR and SR. The basic fact is that if the "A" marker light is extinguished, but the "AG" marker light is lit he will stop the train for one minute by day and two minutes by night and he shall draw his train ahead cautiously and stop in rear of the level crossing. After ascertaining that the gates are closed against the road traffic, the driver shall sound the prescribed code or whistle and cautiously proceed up to the next stop signal.

2) Rigid observance of Rule for passing Intermediate Block stop signal at ON

(Ref: Gr 3.75)

If the driver passes the IBH HOME Signal at ON position, he should be vigilant and cautious. He has to be patient in this case he is not to move a short distance of about one kilo- meter at restricted speed as in the case with an automatic signalling territory but he has to clear the whole of the block section right up to the home signal of station ahead. He must keep the train under his control, within speed restriction of 15 KMPH / 8 KMPH or less, taking into account the brake power, falling gradients or course.

**3) Passing of a defective approach signal
Under the authority of OP/T-27**

Ref.: GR 3.74 & 3.80 – Details are laid down in GR & SR. The driver must be vigilant & cautious while passing the signal. The motorized-

Points when work under manual control may be wrongly set in case of station under RRI or panel interlocked. So, the driver should not trust entirely to signal but always be vigilant and cautious

At stations equipped with a color light signal provided with a 'P' marker, the driver shall bring his train to stand if it does not show any light or shows an imperfect aspect and having satisfied himself that the Signal is provided with a 'P' marker, shall proceed preparing to stop at the next Stop signal and shall be guided further by its aspect.

4) Collisions arising out of derailment: (Ref.: Jt. Circular of CELE, CMPE/RL/ CSS issued vide no. TG.398/12/Jt. Circular

In case of derailment, involving obstruction to adjacent line NO TIME should be lost in protecting the trains in the opposite directions. If there is drop in Brake Cylinder Pressure in Train

the normal reaction should not be limited to an assumption of opening a hose pipe. The worst can be feared i.e., parting involving derailment and obstruction to adjacent line. So even while the train is in motion, the flasher light should be switched on.

The train will come to a stop. The flasher light will continue to glow. Asstt. Driver would go back. He will check the cause of drop of Brake cylinder Pressure. It is only when the Asstt. Driver will certify that there is no derailment and the opposite is not obstructed then only the flasher light should be switched off. In case of obstruction to adjacent line, the immediate step is to protect the opposite Line. No time should be lost.

5) Ambush checking of flashers

The driver must bring his train to an emergency stop in case he finds that the train in the opposite direction, either moving or standing-

In block section, has its flasher working. It should not be imagined that the other driver is at fault and has put on his flasher by mistake. Stop, ask him the reason for working flasher and render all assistance required.

To ensure that the reaction of the driver's Positive and prompt, ambush checks must be conducted on footplate
The drivers who do not stop the train on seeing a working flasher should be taken up and given deterrent
Punishment

6) Extra precautions required to be taken while working trains without "B/V i.e. as last vehicle.

In case of Train without Brake van, when asking and giving Line Clear, the Line Clear enquiry and its reply must clearly include the number and description of the last vehicle under exchange of Private number. The trains number, description and Private number exchanged should be recorded in the Train Signal Register. The number and description of the last vehicle must be repeated to the Section Control and the Station Master of the station in advance while giving train entering section signal from each station.

7) Whistling at level crossing gates/ curves:

GR & SR 4.50 - The whistling at level crossing gates and curves should be done positively and freely. It should not be restricted to only busy level crossing gates and also to other gates where an odd bullock cart/farm tractor may trade on the track. Be watchful at unauthorized crossings.

8) Always Alert Accident Avert:

Ref: GQ 3.78 - The Driver while working a train should be always vigilant and alert for any obstruction on track ahead. While chances are that in good visibility conditions the train may be stopped short of the obstruction, in any case the impact with quick observation and fast reaction will be much less damaging.

09) Do not clear block section with a parted load:

(Ref. : GR & SR 6.08 and 6.09)- in case of pressure trouble, doubt that a parting had taken place and keep the front portion in motion, if possible, until the rear portion has been brought to a stand so as to avoid the chances of collision between two portions.

Check the train. In case of any compulsion of moving with the first part of the parted load

Never clear the block section. Bring your engine up to home signal only. Stop there. Report of fact of the second part still lying in the block section to the Cabin man/Switch- man/ASM.

10) Exchange of alright signal with the Station Staff :

Ref. : GR & SR 4.42 - While passing through a station, exchange alright signal with station staff and Cabin staff. Usually, you will find a green hand signal displayed.

But be observant; it is that occasion of showing a Red flag to you by the Station or Cabin staff that your vigilance and alertness counts. As soon as the driver will see a Red hand signal been shown to him he has to take granted some trouble with his train or the block section ahead. Act fast. Bring the trains to a stop immediately.

Similarly, while passing through a station, your find that the advance starter gone back to danger.

Suspect some problem in the block section ahead, Stop your train. Contact the Station or Cabin and then only act as per their guidance

11) **Working in Foggy Weather**

(GR & SR 3.61)

In foggy weather conditions. Driver is advised/ alerted of the approach signals by putting two fog signals 10 mtrs. Apart, at a distance of 270 mtrs. Outside the distant signals (in signal distant territory) and Outside the inner distant signal in double distant territory.

Once the driver bursts two fog signals at a gap of 10 Mtr apart in thick, Foggy or tempestuous weather he should understand that he is approaching a signal which will be about 270 Mtr, away from the spot of burst of FOG signal. He should bring down the speed of train immediately. He should look for signal and be guided by aspect of signal

12) **Universal and permanent Speed restrictions:**

The importance and knowledge of universal and permanent speed restriction is essential for the running staff. They should be counselled on these restrictions by their inspectors and it should be definite part of road learning process.

14) Difference of working of Train between signal line working conditions and total failure of communications:

The vital differences is

- (a) In case of single line working, the first train moves at a restricted speed of 25 Kmph and all following trains at booked speed.
- b) If a Train is stopped between stations due to any reason and driver finds that it cannot proceed, the train should be protected by placing detonators

At a distance of 600 mtr and 1200 mtrs in front and rear of the train. (Ref: GR & SR 6.03)

AND

II). In case of working of Trains under total failure of communications on double line

a) It is each train that should move at a restricted speed of 25

KMPH over the straight line when the view ahead is clear and 8 KMPH when view ahead is not clear. No trains can work at its booked speed

b) If a train is stopped between stations due to any reasons and the drivers finds that it cannot proceed , the train should be protected by placing detonators at a distance of 250 Mtrs and 500 Mtrs in Rear of Train because they should know that the following trains is likely to come to this spot after about 30 Mts.

In the absence of guard, the duty of protection the train shall be developed on driver).

13. Knowledge of Spring Points:

Know the locations of all spring points in the territory where the driver moves the train. At spring point locations, the train should not be backed.

14. Look Back (GR 4.41)

Please look back while the train is in motion at suitable intervals and curves. In case of any suspected abnormality please stop the train, check the train and act accordingly.

15. Calling out of Signal aspect (Ref: GR &SR 3.83)

Calling out of signal aspect by crew is necessary as soon as it is visible on run, because if one is confused by the signal aspect then the other can rectify it and both of them may pay more attention to the signal aspect so that the signal is not deregulated

16. Rolling down:

Application of Train Brakes on Gradient-

In case of air brake trains, the train brakes (Air Brakes) do not get automatically applied (without operation A-9) when the BP Pressure falls to 0 Kg/cm² Pressure gradually. Under this circumstances, if trains is stalled on a gradient either on account of defects in locomotive or due to OHE Power supply failure. It is essential that the driver applies the train brakes with help of A-9 in addition to loco brakes with SA9 while carrying out trouble shooting a fault of a locomotive or waiting for OHE power restore

This is necessary to prevent the trains from rolling down a gradient due to loss of BP pressure gradually over a period time.

There are further detailed instructions available in chapter 4, para-6 of a guide to operation of Box N package. Issued by E rly in 1995, GR 4.21 and SR 6.03

(A). Instructions are also available in the trouble shooting_ directory for WAG-5 Locomotives. These instructions should also be brought to the notice of Running Staff and each one counselled so as to avoid any mishap.

17) Travelling on Loco/EMU/MEMU Cab for 4 persons other than Crew

SR 4.22 (b) :When authorized by an officer of Operating, Safety, Electrical TRS & TRD (In case of EMU/MEMU) of Mechanical (in case of DEMU) not below the rank of Junior administrative grade, the number of such authorized person will not exceed 03 (three) ,In case of signal sighting committee such authorized person will not exceed 04 (four).