

## CHAPTER - XVI

### LEVEL CROSSINGS

#### **16.01 Knowledge of signals : -**

**No person shall be appointed to be a Gateman unless he has a knowledge of signals.**

S.R.16.01 The controlling official (Station Master or Permanent Way Inspector as the case may be) shall ensure that the Gateman posted at the level crossings under their control are conversant with the working of the particular level crossing gates, before they are put on independent duty.

#### **16.02 Supply and care of equipment: -**

**Every Gatemen shall -**

**(a) be supplied with day and night hand signals, detonators, and other prescribed equipment, and**

**(b) keep such signals, detonators and other equipment in proper order and ready for use.**

S.R. 16.02 (i) (a)The manning and operation of the gates of the level crossing inside the outer most stop signals of the station are under the control of the Station Master and of the gates of the level crossings outside the outer most stop signals are under the control of the Permanent Way Inspector.

(b) Station Masters and Permanent Way Inspectors shall be held responsible for seeing that all the level crossings under their control where Gatemen are posted, are provided with -

- (i) 3 hand signal lamps, tri - colour, provided with bright reflectors,
- (ii) 1 hand signal flag, green,
- (iii) 2 hand signal flags, red,
- (iv) 2 banner flags,
- (v) 2 pole suitable for exhibition of red lamp or red flag,
- (vi) 2 spare chains and padlocks for locking gates,
- (vii) 10 detonators in a case,
- (viii) 1 tommy bar,
- (ix) 1 water pot or bucket,
- (x) 1 tool list (with - columns drawn for checking of tools),
- (xi) Gateman working on Double/Multiple line, Ghat, Suburban and Automatic Block Territories shall be supplied with three flashing red LED lamp  
Gateman working on single line section shall be supplied with one flashing red LED lamp,
- (xii) Pickaxe,
- (xiii) Spade (powrah),
- (xiv) S&T failure register (Interlocked engineering gate only),
- (xv) Gate working instruction (English and vernacular language),

- (xvi) Duty roster,
  - (xvii) Complaint book,
  - (xviii) Inspection register,
  - (xix) Bio - data particulars.
- (ii) The gates of level crossings shall be secured with padlocks and chains, or other efficient authorised locking apparatus, in the “open - to road traffic” position, to prevent the possibility of accidents due to the gates swinging towards and fouling the public road and possibly coming into contact with passing road traffic.
- (iii) (a) The Gateman at Level crossings protected by chains or by gates not interlocked with signals shall be provided with sufficient padlocks and chains or other efficient authorized locking apparatus for securing the chains or Gates across the road for the passage of trains. Gates of level crossings interlocked with signals, shall also be secured with padlocks and chains during failure of the interlocking gear.
- (b) The Gateman at all Level crossings protected by chain/gate leaves/lifting barriers shall be provided with emergency chains of sufficient length to suit the width of the level crossings, padlocks and keys for securing the Level crossings against road traffic during breakage/failure of chains/gate leaves/lifting barriers.
- (iv) (a) The Gateman at level crossings inside and outside station limits shall see that the equipment supplied to them is kept in good working order and is ready for immediate use.
- (b) The Gateman at level crossings shall ensure that the gate lamps, and the lamps of gate signals, if any, are properly cleaned, lighted at sunset, put out after sunrise, and kept burning bright continuously from sunset to sunrise and also during thick and foggy weather. In the case of lamps of gate signals, the Gateman shall also see that the backlights are clearly visible.

### **16.03 Road Traffic :-**

- (1) Subject to such special instructions in that behalf as are permitted by these rules, all gates at level crossings shall be kept constantly closed and securely fastened across the thoroughfare on both sides of the Railway and shall only be opened when it is necessary and safe to open them for the passage of road traffic.**

**Provided that any Railway Administration may from time - to - time issue special instructions for any particular level crossing or class of level crossing and may by such special instructions permit the gates at any level crossing or class of level crossing to be normally kept open to road traffic and may therein prescribe the conditions under which gates are to be kept closed against road traffic for the passage of a train or trains or for the purposes of any other Railway operation; and all such special instructions so long as they be not cancelled or superseded shall for the purposes only of the Railway Administration issuing the same be deemed to be General Rules within the meaning and subject to the provision of Section 60 of the Act.**

- (2) If for any reasons the gates at level crossing cannot be so closed/ fastened across the thoroughfares on both sides of the track, action to prevent the approaching trains, if any, from running into the gate may be taken in accordance with stipulations laid down under General Rules 16.06.**
- (3) Gatemen, where provided, shall, at all level crossings be prepared, whenever such level crossings be open to road traffic, to show a Stop hand signal to any approaching train.**
- (4) Where no Gateman is specially provided for night duty at a level crossing, the gates there at shall, subject to special instructions, be locked at night and opened only to pass road traffic in such manner as may be prescribed by special instructions.**

S.R. 16.03 (i) When the gates are open for road traffic, the Gateman shall have in his hand a red flag during day and a hand signal lamp showing red during night or during thick and foggy weather.

(ii)(a) Instructions for the working of the level crossings inside station limits, shall be embodied in the Station Working Rules. If bell and/or telephone communications is provided between a station and a level crossing (inside or outside station limits) detailed instructions regarding their working also shall be embodied in the Station Working Rules.

(b) The working Rules for all level crossings under the Engineering Department shall be issued jointly by Sr.DEN / DEN, Sr.DSTE / DSTE, and Sr. DOM / DOM. The responsibility of preparation and supply of Gate Working Rules lies with the respective department.

(iii)(a)(i) The Station Master/Cabin Assistant Station Master before authorizing reception or dispatch of a train or allowing a shunt movement shall satisfy himself that the Gates/ Chains of the level crossings inside the First Stop Signals at his station are closed and locked/padlocked across the road traffic for the passage of trains. The Station Master/Cabin Asst. Station Master shall ensure this by the following procedure :-

(1) If telephone communication is provided between the level crossing and the Station/Cabin and level crossing gate is interlocked with the signals of the Station, the Station Master/Cabin Station Master shall advise the Gateman over phone the particulars of the train, with its number, description, direction of movement and probable arrival/departure. The Gateman shall close and secure the gate of the level crossing across the road traffic and communicate his readiness to allow the train/shunt movement across the level crossing over phone operating the ground level/control, transferring of keys through Heppers instrument or by any other means depending on the type of interlocking provided. The Station Master/Cabin Station Master shall then authorise reception/dispatch of the train.

- (2) If there is no response from the Gateman, or if the telephone, fails, or if the interlocking between the level crossing gate and the station fails, the Station Master/Cabin Station Master shall, by deputing a competent Railway servant to the level crossing gate to ensure that the gates are closed and secured across the road traffic and then authorise reception/dispatch of the train.
- (3) The Gate Working Instructions should be included in the Appendix to the Station Working Rules, where the closure of the level crossing gate is being ensured for all trains/shunt movements and the Gate Working Instructions should be included as an integral part of the procedure laid down in the Station Working Rules for reception and dispatch of trains and shunt movements across the level crossing.

Note : - (i) This procedure shall be followed at all level crossings provided with phone communications and protected by Gate - cum - Distant signals.  
(ii) On the double line the words “inside the First Stop Signals” of the station will mean the area between the First Stop Signal and the Last Stop Signal of the respective up/down line.

- S.R.16.03 (iii) (a) (ii) (1) If telephone communication is provided between the level crossing and the Station/Cabin and the level crossing gate is not interlocked with signals of the station, the Station Master/Cabin Station Master before authorizing a train/shunt movement across the level crossing shall advise the Gateman about the particulars of the train with its number, description, direction of movement and probable arrival/departure and communicate a Private Number to the Gateman on duty. The Gateman on duty must acknowledge by repeating the particulars of the train, close and secure the gates of the level crossing against road traffic and then communicate a Private Number to the Station Master. The communication of a Private Number by the Station Master/Cabin Station Master is an assurance that he had informed the Gateman at the level crossing about the details of the shunt movement/movement of the train, and by the Gateman is an assurance that the gates are closed and secured against road traffic. The Private Numbers exchanged between the Gateman and the Station Master/Cabin Station Master must be entered in a register specially maintained for this purpose.
- (2) If there is failure of telephone communication or there is no response from the Gateman, the Station Master/Cabin Station Master on duty before authorizing any train/shunt movement shall send a competent Railway servant to the level crossing for closing and securing the same against road traffic. This shall be ensured by the Station Master on duty by means of exchanging ‘all ready’ signals with the competent Railway servant deputed to the level crossing gate or by other approved means the detail of which shall be incorporated in the Station Working Instructions/Rules.

S.R.16.03 (iii) (a) (iii) (1) In the case of interlocked level crossing situated outside the First Stop Signal provided with telephone communication with the Station/Cabin, before granting Line Clear for a Down or Up train or before dispatch of an Up or Down train or before authorizing any shunt movement across the level crossing, the Station Master/

Cabin Station Master shall advise the Gateman about the particulars of the train with its number, description, direction of movement and probable departure from the adjacent block station or from his station. The Gateman on duty shall acknowledge by repeating the particulars of the train. The responsibility of keeping the gate locked across the road traffic and clearing gate signal for the safe passage of the train without delay lies with the Gateman. The Station Master/Cabin Station Master on duty and the Gateman on duty should record the details of the train including the time of advice in the register maintained separately for this purpose.

- (2) In the case of non - interlocked level crossing situated outside the First Stop Signal provided with phone communication with the Station/Cabin, before granting Line Clear for a Down or Up train or before dispatch of an Up or Down train or before authorizing any shunt movement across the level crossing, the Station Master/Cabin Station Master/Switchman shall advise the Gateman about the particulars of the train with its number, description, direction of movement and probable departure from the adjacent block station or from his station and communicate a Private Number to the Gateman on duty. The Gateman on duty must acknowledge by repeating the particulars of the train, close and secure the gates of the level crossing against road traffic and then communicate a Private Number to Station Master/Cabin Station Master on duty. The Private Number given by the Station Master/Cabin Station Master on duty constitutes an assurance that he had informed the Gateman at the level crossing about the movement of the train. The Private Number given by the Gateman to the Station Master/Cabin Station Master constitutes an assurance that the kept the gate of the level crossing closed and secured against road traffic for the passage of the train/shunt movement. The Private Number exchanged between the Station Master/Cabin Station Master on duty and the Gateman on duty must be entered in a 'separate register maintained for this purpose'.

- Note : -
- (1) Where it is necessary for the Gateman to close and secure the gate against road traffic and then give a Private Number to Station Master/Cabin Station Master/Switchman, the same should be specified in the Station Working Rules, and in the Gate Working Rules. The responsibility of keeping the gate locked across the road traffic for the safe passage of the train without delay lies with the Gateman.
  - (2) If there is a failure of telephone communication or there is no response from the Gateman at such level crossing, the Station Master/Cabin Station Master on duty before granting Line Clear for a Down or Up train or before dispatch of an Up or Down train or before authorizing a shunt movement across the level crossing shall take action as detailed in S.R.16.03 (iii) (b).
  - (3) In push button type Tokenless Block Territory the Station Master/Cabin Station Master of the station which is provided with telephone communication connected to level crossing which is situated outside the First Stop Signal of the station shall normally remove the shunt key from the block instrument and keep it in his personal custody. He shall before authorizing dispatch of a train or shunt movement across the level crossing take action as detailed in S.R.16.03 (iii) (a) (iii) above. When the Station Master at the other end who is not provided with telephone communication

connected with the level crossing before setting his block instrument to "Train Going To" position for the dispatch of a train - shunt movement across the level crossing shall inform the Station Master who is provided with telephone communication connected with the level crossing, the particulars of the train for which the section is to be blocked and ask him to insert the shunt key in the Hepper's instrument of the concerned block section. On getting the details of the train the Station Master who is provided with telephone communication connected to the level crossing shall first take action under para 16.03 (iii) (a) (iii) and then insert the shunt key in the concerned Hepper's instrument under advice to the Station Master at the other end.

(4) Where the level crossing is connected by telephone communication from the stations at either end, the shunt key removal referred to in Note: 3 need not to be done. In such cases, The Station Master shall exchange Private Number directly with the Gateman before dispatching a train.

S.R.16.03 (iii) (a) (iv) In the case of level crossings which should be normally closed against the road traffic where telephone communication is not provided nor interlocked with signals, it is responsibility of the Gateman to keep the gates always closed against road traffic, and he can open the gate for road traffic only after personally ensuring that there is no train from either end that there is no train approaching and it is safe to do so. Wherever level crossing gate provided with swing gate leaves which are closed against road traffic are to be opened for road traffic, when there is no train movement and when it is safe to do so, the gate leaf/leaves where more road traffic is waiting should be opened first and the other next.

S.R.16.03(iii) (b) In the case level crossing not protected by a gate signal situated outside stations limits and provided with bell and/or telephone communication -  
(1) Whenever the Gateman's acknowledgment is not received, the Station Master shall take the following precautions : -  
(i) In the case of the train due to enter the block section from his station, he shall issue a Caution Order to the Loco Pilot, run through trains being stopped out of course for the purpose;  
(ii) In the case of a train due to enter the block section from the station at the other end, he shall, before giving Line Clear for the train, advise the Station Master of that station of the fact and obtain his acknowledgment and the latter shall issue a Caution Order to the Loco Pilot, run through trains being stopped out of course for the purpose.

S.R.16.03 (iii) (b) (2) (i) Whenever a Loco Pilot receives a Caution Order that the Gateman's acknowledgement has not been received, he must approach the level crossing gate at a speed not more than 20 KMPH and whistling as frequently as possible. Should he find the Gateman waving signal for his train to proceed, he may do so cautiously. Should however the Loco Pilot not find the Gateman the procedure laid down in S.R. 3.73 must be followed.

- (ii) When a Gateman is absent and the gate is padlocked in the “open - to - road traffic” position, the Guard and Loco Pilot shall act with caution to pass level crossing ensuring that the level crossing is clear and the road traffic is warned.
  - (iii) In the case of level crossing outside station limits provided with bell and/or telephone communication and protected by a Gate signal, whenever the Gateman’s acknowledgment is not received, trains need not be stopped out of course for the issue of Caution Order.
- S.R.16.03(iii) (c) Where gates which normally close across the Railway line are provided double leaves, the leaves which do not carry the gate lamps shall be closed across the public road before those carrying the gate lamps. Where gates which do not normally close across the Railway line (i.e., normally open away from the Railway line for the passage of road traffic), be closed across the public road before the leaves which do not carry the gate lamps.
- S.R.16.03 (iv)(a) Train shall, as far as possible, be stopped clear of level crossings. Whenever trains can be stopped clear of level crossings, the Guard shall, before giving the Loco Pilot the signal to stop, ensure that the last vehicle has passed clear of the level crossing by two vehicle’s length. After the last vehicle has cleared the level crossing by two vehicle’s length, the gates (or chains) shall, if it is safe to do so be opened for the passage of road traffic.
- (b) After the train has been brought to a stand clear of the level crossing, the Loco Pilot shall not, on any account, back his train, unless the Guard personally instructs him to do so and the Guard shall not give such instructions unless he has assured himself that the gates or chains have been secured across the public road on both sides of the Railway and that the line is clear for the backward movement.

**16.04 Gateman to observe passing trains :-**

**Except where otherwise prescribed under special instructions, the Gateman shall observe all passing trains and be prepared to take such action as may be necessary to ensure safety of trains.**

- S.R.16.04 (i) The Gateman at all level crossing gates should stand attentively at the gate lodge side, facing the track with furled red and green flags during day in right and left hands respectively and at night hold the hand signal lamp with the white light pointing towards him. He shall watch all passing trains to see any unusual condition like hot axle, chain hanging, any vehicle/wagon on fire, load shifted etc. and take prompt action to warn the Loco Pilot and Guard of the train by showing a danger signal. The Loco Pilots and the Guards should be on the lookout for such danger signals.

**16.05 Channel for flange of wheels :-**

**The Gateman shall see that the channel for the flange of the wheels is kept clear.**

## 16.06 Defects at level crossings:-

**If any gate or the fastenings thereof, or any fixed signal pertaining to the gate becomes out of order, the Gateman shall -**

- (a) Take action to close the gates, if possible, against the road traffic.**
- (b) After closing the gates, hand signal the train movements past the level crossing.**
- (c) If the gates cannot be so closed put the banner flag or level crossing flag in such manner as to warn the approaching train to stop short of the gate and there after hand signal the train.**
- (d) Report the fact to his superior or the nearest Gangmate.**

S.R.16.06 (i) Reception and dispatch signals, interlocked with level crossing gates shall be passed by the Loco Pilot, when they are “ON” or defective in accordance with the provisions of Rules 3.69 to 3.71.

(ii) If the Gateman at a level crossing, outside station limits, becomes aware that his gate Stop signal has become defective, -

- (a) he shall take measures, either by disconnecting the wire or by other means, to place the signal at “ON”, if it is not already in that position and light the signal at night except when red roundels are cracked or broken.

Note :- Once the signal has been treated as defective, it shall not, on any account be taken “OFF” for any train until it is restored to good working order by the official responsible for the upkeep of the signal.

(b) On hearing a train approaching, the Gateman shall after ensuring that the gates are closed and locked across the road traffic and that there is no obstruction on the track as far as he can see, give “proceed - with - caution” hand signal to the Loco Pilot from the level crossing or from the place where his hand signal can be seen by the Loco Pilot in cases of gate Stop signals with ‘G’ markers. If there is no ‘G’ marker on the gate Stop signal, he shall proceed to the gate Stop signal and after the train has come to a stop, report the matter verbally to the Loco Pilot and pilot the train past the signal at “ON” riding on the foot-plate of the engine. The Loco Pilot shall then restart and proceed very cautiously until the level crossing is passed. He shall stop the train again to enable the Gateman to get down and then proceed onwards. The Loco Pilot shall advise the Station Master of the block station ahead in writing, of the defective gate Stop signal by stopping the train, even if booked to run through. The Station Master shall at once advise by telephone, the officials who are responsible for the upkeep of the signal as also the Station Master of the block station at the other end, and notice stations who shall issue Caution Orders to trains entering there block section from either end in accordance with Rule 4.09, until they are advised that the signal has been rectified.

(c) Loco Pilots of subsequent trains to whom Caution Orders are issued shall also stop their trains at the defective gate Stop signal and pass the level crossing as detailed in Rule 3.73, but they need not stop at the block station ahead to notify the Station Master, if booked to run through.

S.R.16.06 (iii)(a) Gateman at level crossings inside station limits, shall report any defect in the gates or the apparatus pertaining to them to the Station Master. Gateman at level crossings, outside station limits, shall report the defects to the nearest Station Master, Gangman Or Permanent Way Inspector.

(b) On receipt of such report, the Station Master shall immediately advise the engineering and other officials concerned. If the condition of the level crossing gate necessitates the issue of Caution Order to Loco Pilots, the Station Masters on either side shall arrange for the issue of Caution Orders in accordance with Rule 4.09.

**16.07 Obstructions at level crossings :-**

**Every Gateman, on noticing any obstruction on the line, shall at once remove it or, if unable to do so, shall –**

**(a) take action to ensure that the fixed signals, if any, protecting the gate are kept at “ON”,**

**(b) show Stop hand signal and do his best to stop approaching trains, and**

**(c) shall protect the obstruction as per Rule 3.62.**

S.R.16.07 (i) In addition to taking action under Rule 16.07, the Gateman at a level crossing inside station limits shall immediately report the matter to the Station Master for necessary action and the Gateman outside station limits shall follow the rules given in the Working Rules for the level crossing.

**16.08 Parting of a train : –**

**If a Gateman notices that a train has parted, he shall not show a Stop hand signal to the Loco Pilot, but shall endeavour to attract the attention of the Loco Pilot and the Guard by shouting, gesticulating or other means.**

S.R.16.08 (i) At all manned Level crossing the Gateman shall stand facing the track on the gate - lodge side of the approaching train and be prepared to repeat any signal which the Guard may have occasion to give to the Loco Pilot. He must look out for the “Last Vehicle Board or Tail lamp” as the case may be. If he notices that the train has parted, he must try to draw the Loco Pilot’s attention by shouting that the train has parted at the same time, by day, putting both his hands together above his head and separating them quickly and by night, by waving a white light slowly up and Down vertically as high and as low as possible; he must not show any other signal or a danger signal to the Loco Pilot. Whether the parting was noticed by him or his attention has been drawn to it by the Loco Pilot of the train, he must, if time permits, also place on the line 3 detonators about 10 meters apart and try to stop the rear portion by attracting the attention of the Guard by shouting to stop this portion and showing a danger hand signal.

Note : - See S.R.5.12 (v) (b).

#### **16.09 Trespassing :-**

**Every Gateman shall, as far as possible, prevent any trespassing by persons or cattle.**

#### **16.10 Transfer of charge of gate :-**

**Except in accordance with special instructions, no Gateman shall leave his gate unless another Gateman has taken charge of it.**

S.R.16.10 (i) At level crossing where only one Gateman is on duty, the Gateman shall not leave his level crossing without securing the gates or chains against road traffic or until another competent Railway servant has been placed in - charge by the Station Master in the case of level crossings inside station limits or Gangmate in the case of level crossings outside station limits.

(ii) At level crossing gate manned during day hours only the Gateman while breaking the duty shall close and pad locked the gate against the road traffic and inform the Station Master that the gate is closed and pad locked against road traffic supported by a Private Number. When the gateman resumes for duty he shall inform the Station Master about his reporting for duty.

#### **16.11 Height gauges :-**

**(1) Adequate arrangements shall be made to erect height gauges on either side of the overhead equipment or other equipment at every level crossing so as to ensure that all vehicles and moving structures passing under the height gauge also pass under the overhead equipment or other equipment with adequate clearance.**

**(2) The adequate clearance referred to in sub - rule (1) shall be sanctioned under approved special instructions.**

**(3) Vehicles and moving structures, which cannot pass under the height gauge without striking or touching it, shall not be permitted to pass the overhead equipment or other equipment except in accordance with special instructions.**

S.R.16.11 (i) The clearance of the height gauges at level crossings in the electrified section shall be maintained at 4.67 metres from road level.

(ii) Whenever over dimensioned consignments are to be passed through level crossings in the electrified section, it shall be done with the specific approval of the Sr.DE(TRD)/DEE(TRD)/DEN concerned duly observing all safety precautions with respect to electrical clearance.

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