

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.

SR-16-01 Certificate of Competency – After prescribed training, every Gateman shall be tested by Section Engineer (P. Way) or Traffic Inspector, as the case may be, and issue a certificate of competency in the form given below before he is put to work independently. The competency certificate shall be valid for a period of three years.

Certificate of Competency

Certified that I (Name)-----Designation-----have examined Shri_____ S/o_____ designation_____ Station_____ in the duties of Gateman. He is conversant with the use of hand signals, detonators and other equipments provided at the gate. He is also conversant with the procedure to be adopted during abnormal conditions. He is hereby declared has fit to perform the duty of gateman at gate No. _____.

Place

Signature

Date

Designation SE (P. Way)/TI

16.02. **SUPPLY AND CARE OF EQUIPMENT** - Every Gateman 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 (1) The manning and operation of the gates of level crossings inside the outermost Stop Signals in either direction at a block station are under the control of the Station Master and the manning and operation of the gates of the level crossings outside the outermost Stop signals in either direction of a block station are under the control of the Section Engineer (P. way).

(2) (a) Station Masters/TIs and Section Engineer (P. way) must ensure that all level crossings under their control where Gateman are posted are provided with the following equipments and following records are kept maintained :-

Sl. No.

Items

Quantity/ Numbers

(1)	<i>Hand Signal Lamp Tri Colour</i>	3 (5 on <i>Quadruple/Line</i> or twin single line)
(2)	<i>Hand Signal Flag Green</i>	1 Mounted on sticks.
(3)	<i>Hand Signal Flag Red</i>	3 (6 on <i>Quadruple/Line</i> or Twin single line and in case <i>Hexaple Section</i> mounted on sticks)
(4)	<i>Banner Flag Red</i>	3(5 on <i>Quadruple/Line</i> or twin single line)
(5)	<i>Posts for exhibiting red banner flag (4 on Q/Twin single line and 5 on Hexaple Section)</i>	
(6)	<i>Spare chains with padlocks</i>	2 with stop mark.
(7)	<i>Detonators</i>	10 in tin case.
(8)	<i>Fusee</i>	1(3 on multiple line, double line, parallel lines suburban sections, automatic signalling and ghat sections)
(9)	<i>Gate lamps</i>	2
(10)	<i>Tommy Bar</i>	1
(11)	<i>Mortar Pan</i>	1
(12)	<i>Spade/Fowrah</i>	1
(13)	<i>Rammer</i>	1 (in case of asphalted road this may not be provided)
(14)	<i>Pick Axe</i>	1 (in case of asphalted road this may not be provided)
(15)	<i>Tin case for flags</i>	1
(16)	<i>Can for oil</i>	1
(17)	<i>Water pot/Bucket</i>	1
(18)	<i>Canister for Muster Roll</i>	1
(19)	<i>Set of spare spectacles of gateman wearing glasses</i>	1
(20)	<i>Board demarcating protection of level crossing gate diagram in case of obstruction on gate</i>	1
(21)	<i>Basket</i>	1
(22)	<i>Whistle</i>	1
(23)	<i>Wall Clock</i>	1

RECORDS TO BE KEPT AT GATE LODGE:

In addition to the above equipment, following records shall also be kept at the gate lodge

- (1) *Gate Working Instructions in Hindi/English.*
- (2) *Gate Working Instructions in local vernacular language.*
- (3) *Gateman Rule Book in local vernacular language.*
- (4) *List for tools and books.*
- (5) *Duty Roster.*
- (6) *Certificate for working as gateman.*
- (7) *Bio-data particulars of Gateman, including date of passing vision test, initial/ refresher course, safety camp, etc.*
- (8) *Accident Register.*
- (9) *Record of last census of road traffic at level crossing gate.*
- (10) *Public Complaint Book.*
- (11) *Inspection Book.*
- (12) *S&T Register in case of interlocked Engineering Gate.*
- (13) *Private number sheet at gates provided with telephones.*

(3) *The gates of level crossings must be secured with 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.*

(4) *The Gate at level crossings protected by chains, or by gates not interlocked with signals must be provided with sufficient padlocks and chains or other efficient authorised locking apparatus for securing the chains or gates across the road for the passage of trains. Gates of level crossings, interlocked with signals, must be so secured with padlocks and chains during failure of the interlocking gear.*

(5) *The Gateman at level crossings must ensure that the gate lamps of gate signals, if any, are properly cleaned, are lighted at sunset, are put out after sunrise and are kept continuously burning brightly from sunset to sunrise. In the case of lamps of gate signals, the Gateman must also see that the back lights 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 47 of the Act.

- (2) If for any reasons the gates at level crossings 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 stipulation 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 thereat 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.

SR. 16.03 – (i) Traffic Gates – The operation of gates at level crossings within the outer most stop signals in either direction of a block station shall be under the control of the operating Department while the level

crossing and structures appertaining thereto shall be maintained by the Engineering Department. Working Instructions for these gates shall be incorporated in the Station Working Rules of the Block station in question and a copy of the same shall be posted at the gate lodge.

(ii) **Engineering gates :-** Level crossings outside the Outermost stop signals in either direction of a block station shall be under the control of the Engineering Department both , as regards their operation and maintenance. Such Level crossings may be -

- (a) Outside the Outermost stop Signal in either direction of a block station, but within its station limits. - Working instructions for such level crossings, if manned, shall be incorporated as an Appendix to the Station Working Rules of the station concerned and a copy of the same will be posted at the gate lodge.
- (b) Outside the Station limits of any block station- In case of such level crossings if manned, a copy of the working instructions shall be posted only at the gate lodge.

Note:- Where a level crossing is equipped with signals and is situated outside the stop signals of a block station, Signalling and interlocking diagrams shall, in addition to the working instructions, be posted at the gate lodge.

(iii) **Operation of gates provided with telephones.-** Where a gate not interlocked with signals of a station, is provided with a telephone connected with the adjoining station / cabin, the opening / closing of the gate will be done in the manner indicated below-

- (a) Where the gate is normally “closed to road traffic” the Gateman before opening the same shall ensure by exchange of Private Numbers with the ASM/Switchman of the connected station that no train is approaching the level crossing.

Similarly after clearing the road traffic on either side, the Gateman shall close the gates against road traffic and lock them, keeping the keys in his personal custody and advise the ASM/Switchman on duty at the connected station under exchange of Private Numbers that the gates have been closed and locked. Till this advice of closure of the gates is received, the ASM/Switchman shall not allow a train in the section.

- (b) Where the gate is normally “Open to road traffic’ the ASM/Switchman of the connected station shall ensure by exchange of Private number that the gate is closed to road traffic before a train enters the block section towards the level crossing.

Note- In the event of telephonic communication between the gate and the station being out of order, the gate shall be opened/ closed in the manner laid down in station working rules.

- (c) In the event of Station Master /Switchman not being in a position to get in touch with a Gateman, due to the telephone being out of order or the gateman being absent or for any other reason, he should not allow any train to proceed towards such Level crossing unless the Driver has been served with a caution order to warn the Driver about the possibility of the level crossing being open to, road traffic and the line being obstructed. The number and kilometrage of the level crossing should also be indicated clearly in the caution order.

Similarly, it shall be the responsibility of the Station Master / Switchman of the gate controlling station to attend promptly all telephone calls from the Gateman without fail as, any call could also be for reporting any emergency.

- (d) *Specific instructions regarding opening/closing of the gate should be laid down in Station/Gate Working Rule.*

(iv) *In case of level crossings situated within the station limit, its working instructions shall be embodied in the Station Working Rule of its controlling station and in case of level crossings situated outside station limit, the working instructions shall be maintained by the Section Engineer (P. Way). The Station Master and Section Engineer (P. Way) controlling such level crossings shall ensure that copy of these working instructions along with regional language as applicable are invariably kept hung at a conspicuous place at the gate lodge of each manned level crossing situated in and outside the station limit. They shall also ensure that the Gateman to be posted for independent duty at such level crossing thoroughly understand the working instructions of the level crossing concerned and that they give an assurance to that effect like other station staff in the assurance register to be maintained for this purpose at the gate lodge of each manned level crossing. In respect of traffic level crossing such Assurance Register may be maintained at the controlling station.*

The Officers and Senior subordinates and the Section Engineer (P. Way) and TI(M)s whenever on line/inspection shall invariably examine the gateman to ensure that they have a correct knowledge of the working rules of the gate and that they have signed the Assurance Register as well.

(v) **Position during passage of trains :-** *At a manned level crossing where the gates are not designed to close across the track, the Gateman should stand at the middle of the gate facing the track, on the gate lodge side of the approaching train, and hold hand signal in the manner indicated below –*

- (a) *During day he should hold red and green hand signal flags furled on separate sticks, the green in the left hand and red in the right hand and be prepared to take action should any danger be apprehended, or to repeat any signals which the Guard may intend to convey to the driver.*
- (b) *During night he should carry a lighted hand signal lamp which will not be exhibited in the direction of the approaching train but will be held in readiness, so that he may show a danger signal in case of necessity as laid down in sub-paragraph (a) above.*
- (c) *During night, in order to be able readily to show any danger signal to any approaching train, when level crossings are opened to road traffic, Gateman must invariably keep their hand signal lamps set to show red throughout the period their level crossing are open to road traffic.*

(vi) *In case of level crossing gates not protected by gate/station stop signal, gateman should display a red flag by day time and red light during night towards the approaching trains on either side of the level crossings as long as the gate is kept open to road traffic subject to rigid observance of GR-16.03 and SR- 16.03 (i) to (v).*

(vii) (a) *All Level crossing gates shall be so worked as to cause the least possible inconvenience to vehicular traffic, consistent with safety.*

(b) *In order to eliminate frequent and undue detention to road traffic at important Level crossings, such Gates shall not normally be closed for more than 10 minutes at a stretch or as mentioned in SWR/Gate Working Rules.*

(c) *At Level crossings which are provided with telephone the gateman, on receipt of information about a motor trolley being on line clear shall not close the gates immediately, but shall keep a sharp look out for the motor trolley and shall close the gates when it is actually in sight. The same procedure also be followed by Cabinman / Switchman in the case of gates operated from the Cabins.*

(d) *Gates must be closed and locked before shunting is commenced. The gates must be opened as required to allow road traffic to pass and shunting to be stopped, if necessary. In such cases the Gateman or other railway servant must show a danger signal to approaching engine or vehicles.*

(vii)(a) *The classification of level crossings should be as follows*

Special class :

- A *Class for vehicular Traffic*
- B *Class*
- C *Class*
- D *Class for cattle crossing and Foot paths.*

(b) *Level Crossings over colliery, factory and other similar sidings where railway traffic is light may, however, be worked according to local condition.*

(c) *Whistle Boards must be provided at an adequate distance in rear of the all level crossing gates on both sides. The adequate distance for this purpose shall be 600 metres.*

(ix) (i) *Gate lamps must be provided for all gates at 'special' A, B, and C class level crossings.*

Note:- *Reflector or a red disc painted with red luminous paint may be provided as an alternative to lamps at C class level crossings provided with gates.*

(ii) *Gate lamps must show:-*

- (a) *To road users 'Red' when the gate is closed to road traffic and 'White' when open to road Traffic.*
- (b) *To Drivers of approaching trains no light for 'Special' A, B, and C class level crossings when closed against road traffic.*

(x) *In all cases when a gate is ordered to be closed it must be closed and locked. A Gateman will not be considered to have closed a gate until such time it has been locked also.*

(xi) *In all cases when the gates at a level crossing are required to be opened for passage of road traffic, the Gateman, if the line is clear of rail traffic, must first open the gate farthest away from the approaching road traffic and then open the gate on the side nearest to the approaching road traffic, to give that traffic unobstructed passage across the crossing.*

Note- *Level crossing gates interlocked or non-interlocked where telephone is provided and is connected with any station, the working instructions of the gate must be incorporated in the Station Working Rules of the Station to which it is connected.*

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.

SR-16.04 (A) *The Gateman at all Level crossing Gates should stand attentively at the gate lodge side, facing the track with furred red and green flags during day in right and left hands respectively and at night hold the hand signal lamp with the white light. He shall watch all passing trains to see any unusual condition like hot axles, chain hanging, any vehicle/wagons on fire, load shifted etc. and take prompt action to warn the Driver and Guard of the train by showing a danger signal. The Drivers and the Guards should be on the look out for such danger signals.*

- (B) *In case gateman observes any thing unusual with a passing train, he shall take following action:*
- (i) *He shall take prompt action to warn the driver/guard of the passing train by showing red flag by day and red light by night.*
 - (ii) *He shall simultaneously try to draw the attention of the driver/guard by whistling continuously, shouting, gesticulating, throwing ballast on the brake van or by any other means*
 - (iii) *If driver/guard fails to take notice, gateman shall immediately inform the Station Master/Switchman/Cabinman, if connected on telephone, to take appropriate action, under exchange of private number.*
 - (iv) *In case of train parting, gateman shall not show stop hand signal but shall show prescribed signal for train parting.*
 - (v) *He shall endeavor to attract the attention of the driver/guard by whistling above, quickly parting them and bringing them together in repeated Up and Down motion as high and as low as possible.*
 - (vi) *In Case the train does not stop, gateman shall immediately inform the Station Master/Switchman/Cabinman, if connected on telephone, to take appropriate action, under exchange of private number.*

16.05 CHANNEL FOR FLANGE OF WHEELS.- The Gateman shall see that the channel for the flange of the wheels is kept clear.

S.R. 16.05 (i) During the dry months of the year, in order to lay the dust, level crossings must be thoroughly watered by the Gateman regularly to avoid the inconvenience to passengers of trains from the dust.

(ii) At level crossings where there is no Gateman, the Mate or his keyman must inspect each level crossing daily, to see that the channel for the flanges of the wheels is 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 road traffic.
- (b) after closing the gates, hand signal the train movement past the level crossing.
- (c) if the gates can not be 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 thereafter hand signal the train.

- (d) report the fact to his superior or the nearest gang mate.

S.R.16.06(i) In the event of gate signal being out of order the Gateman on duty shall immediately place the gate signal in the 'ON' (i.e. Danger) position if not already 'ON'. Until he does this, he must keep the gate closed and locked against the road traffic. Thereafter he shall report the fact to Station Master if connected with telephone or to his immediate superior. , through any agency including the Driver of the first available train, and stand by ready to pass trains on hand signal. The kilometres at which the signal located should be advised while intimating.

(ii) If any Gate signal of level crossing gate which has been provided with a 'G' marker becomes defective, it shall be kept at 'ON' and the light shall be kept burning at night. The driver of an approaching train finding a Gate signal with a 'G' marker at 'ON' shall sound a long whistle and bring his train to a stop in rear of the signal. If after waiting for one minute by day and two minutes by night the signal is not taken off he should draw his train ahead cautiously and stop again short of the level crossing. The Gateman after closing and locking the gate across the road, shall hand signal the train past the level crossing. In the absence of the Gateman, this duty will be performed by one of the engine crew or by the brakes man or the Guard. After passing level crossing gate, the train to be stopped clearing the gate and the gate to be opened in absence of the gateman by the brakes man or guard.

(iii) In respect of Gate signal referred to in (ii) above, the Driver of the first train shall stop the train at the next station and report the defect to the Station Master on duty, who will then advise the station at the other end. for rectification.

(iv) When Warner/Distant or Gate Home signal of any gate has failed in 'off' position the Station Master will take all efforts to bring it to ON position.. If it can not be brought to ON, drivers to be warned through caution order.

16.07. OBSTRUCTIONS AT LEVEL CROSSING - 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 obstructions as per Rule 3.62.

S.R. 16.07 ACTION IN AN EMERGENCY AT THE LEVEL CROSSING:

- (i) In case of an obstruction at the level crossing gate, gateman shall maintain the gate signals, if any, in the 'ON' position.*
- (ii) Thereafter, if he is unable to remove the obstruction, gateman shall immediately advise the Station Master/Switchman/Cabinman on duty, if connected by telephone, regarding the defects/obstructions at the gate, under exchange of private number.*
- (iii) It there is no response from the Station Master/Switchman/Cabinman after two or three attempts, he shall first protect the gate and then inform on phone.*

(iv) *The gateman shall protect the line as under:-*

(a) On double line section:

- (i) *If both lines are obstructed the Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the line on which a train is expected to arrive first.*
- (ii) *Then he will similarly plant the other red banner flag by day and red light by night on the other line 5 meters away form the site of obstruction.*
- (iii) *Gateman shall then proceed to protect the gate along with detonators, fusees and red flag by day and red hand signal lamp by night.*
- (iv) *Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night on the line on which a train is expected to arrive first, to a point 600 meters on BG and 400 meters on MG/NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 800 meters on MG/NG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back.*
- (v) *Thereafter, he shall proceed on the other line, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back.*
- (vi) *Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.*
- (vii) *In case of gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.*
- (viii) *Thereafter, he shall light up and fix the fusee to warn the driver and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.*

(b) On single line section:

- (i) *Gateman shall plant a red banner flag by day and a red light by night 5 meters away on posts duly provided for the purpose. He shall first protect the direction from which a train is expected to arrive first.*
- (ii) *Then he will similarly plant the other red banner flag by day and red light by night towards the other direction 5 meters away form the site of obstruction.*
- (iii) *Gateman shall then proceed to protect the gate along with detonators, fusees and red flag by day and red hand signal lamp by night.*

- (iv) *Gateman shall proceed exhibiting red flag by day and red hand signal lamp by night towards the direction from which a train is expected to arrive first, to a point 600 meters on BG and 400 meters on MG/NG and place one detonator on the line. Thereafter he shall proceed to a distance 1200 meters on BG and 800 meters on MG/NG from the level crossing gate and place 3 detonators on the track 10 meters apart. Having thus protected the line he shall return to the level crossing gate picking up the intermediate detonator on his way back*
- (v) *Thereafter, he shall proceed towards the other direction, showing red hand signal, similarly place detonators as described in para (iv) above and return to the site of obstruction, picking up the intermediate detonator on his way back*
- (vi) *Having returned to the gate, he must then take steps to remove the obstruction and warn the driver of the approaching train.*
- (vii) *In case the gateman observes or hears a train approaching when he is still on his way to protect and before he reaches the stipulated distance to place detonators, he shall place detonators on the line at a distance as far away as he can go.*
- (viii) *Thereafter, he shall light up and fix the fusee to warn the driver and stop the approaching train by waving his red flag by day red hand signal lamp by night repeatedly.*

(c) On multiple line section:

On multiple line section the procedure for placement of detonators will be same as mentioned for double line for protection of the gate during obstruction except that the red banner to be placed on the reversible line at both the ends. Also after placement of detonators on the line on which train is expected to arrive first, detonators to be placed on the reversible line simultaneously. In the same manner it should be protected at the other end.

(d) Other action to be taken by Gateman:

- (i) *At night Gateman shall light two hand signal lamps and take action to exhibit red light and protect the lines as described in sub paras (a) and (b) above.*
- (ii) *If the gate is broken by a road vehicle which is fouling the track, or if lifting barriers/leaf gates or any other part of the gate foul the track, or if there is any other obstruction at the gate, the gateman shall take immediate action.*
- (iii) *He shall note down the particulars of the road vehicle, vehicle number, name of the driver, owner and relay these details to the nearest Station Master/Switchman/Cabinman or Section Engineer (P. Way) regarding the particulars and obstructions at the level crossing gate, through messenger or other means available.*

Note- *Immediate steps to protect the line/lines as detailed above must be taken in case control of the level crossing gate is forcibly taken over by outsiders such as snatching the gate key etc.*

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 Driver, but shall endeavour to attract the attention of the Driver and the Guard by shouting, gesticulating or other means.

S.R. 16.08 Gateman's duty when a train parts -

If a Gateman observes a train running in two or more portions, he will draw the attention of the Driver, Guard or Assistant Guard by shouting and/or whistling. He should also show green hand signal during day and white light during night waving up and down vertically as high and as low as possible. He should show no other signal.

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.

SR-16.10 (i) No Gateman may leave his gate without being properly relieved. In case of Engineering Gate the relief to be arranged by the Section Engineer (P. Way) and in case of traffic gate such relieve to be arranged by Station Master. The person incharge of the gate i.e. SE (P.Way) or Station Master must ensure that gateman are performing proper duty and no one is allowed to perform more than the prescribed duty. In case of any emergency, the person incharge will arrange relief before the gateman working at the gate is relieved.

(ii) If on account of unforeseen and inescapable circumstances the absence of gateman from the gate becomes altogether inescapable, a Gateman must not leave his gate without ensuring that the gate is manned by any reliever or if reliever is not arranged, the gate is closed and locked to road traffic.

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 over head 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.

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