

# **Line clear**

**and various line clear tickets**

**Korukonda Siddharth**

# Means of granting/obtaining line clear

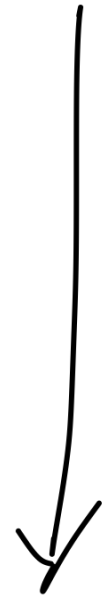
- Electronic Block Instruments(Token/Tokenless)
- Track Circuits
- Axle Counters
- Electrical Communication Instruments

# Certificate of competency

**EBI/TC/AC are provided**

- PRINCIPAL,ZRTI

*under special conditions*



- Junior Engineer(Signal) countersigned by Divisional Signal and Telecommunication engineer

# Code of Bell Signals

**14.05 BELL CODE.—**For the signalling of trains, the prescribed code of bell signals as detailed below, shall be used and a copy thereof shall be exhibited in each block station near the place of operation of the block working equipment -

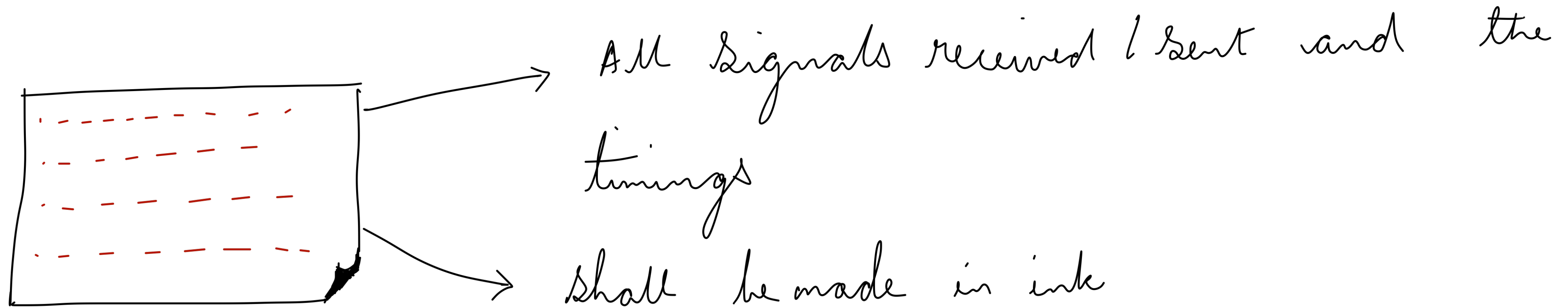
Ref No.	Indication	Code	How Signalled	How Acknowledged
1.	CALL ATTENTION, OR ATTEND TELEPHONE	0	One stroke or beat	One stroke or beat
2.	IS LINE CLEAR, OR LINE CLEAR ENQUIRY	00	Two	Two
3.	TRAIN ENTERING BLOCK SECTION	000	Three	Three
4.	(A) TRAIN OUT OF BLOCK SECTION (B) OBSTRUCTION REMOVED	0000	Four	Four
5.	(A) CANCEL LAST SIGNAL (B) SIGNAL GIVEN IN ERROR	00000	Five	Five
6.	(A) OBSTRUCTION DANGER SIGNAL (GENERAL)	000000	Six	Six
	(B) STOP AND EXAMINE TRAIN	000000—0	Six pause one	Six pause one
	(C) TRAIN PASSED WITHOUT TAIL LAMP OR TAIL BOARD	000000—00	Six pause two	Six pause two
	(D) TRAIN DIVIDED	000000—000	Six pause three	Six pause three
	(E) VEHICLES RUNNING AWAY IN WRONG DIRECTION ON DOUBLE LINE OR INTO THE BLOCK SECTION ON SINGLE LINE.	000000—0000	Six pause four	Six pause four
	(F) VEHICLES RUNNING AWAY IN RIGHT DIRECTION ON DOUBLE LINE	000000—00000	Six pause five	Six pause five
7.	TESTING	0000000000000000	Sixteen	Sixteen

**Note. -**

- (1) '0' indicates a Stroke or a Beat and '—' indicates a Pause.
- (2) Each signal shall be given slowly and distinctly.
- (3) Exchange of bell codes under reference number 3 and 4 are not required in a section provided with block proving axle counter or track circuit having complete track circuiting of station yard excluding non-running lines on either end.

- Each Signal received should be acknowledged
- Acknowledged only after clearly understood
- Signal not completed till it's acknowledged
- Repeated at not less than 20 seconds intervals

# Train Signal Register



- Train Signal register must be preserved by station master for 12 months after completion.

**Authority to Proceed**



- Token from EBI
- Line Clear Ticket duly signed by Station Master
- any document prescribed in this behalf by special instructions
- Taking 'OFF' of the last stop signal on sections provided with EBI of tokenless type or track circuits or axle counters

# Failure of EBI/TC/AC

# Closing of the Block section

- When the block section has been cleared by the arrival of the train or by the removal of the cause of blocking.
- Station master should satisfy himself:
  1. Train has arrived in complete or the cause of blocking has been removed
  2. Conditions of line clear are complied with.

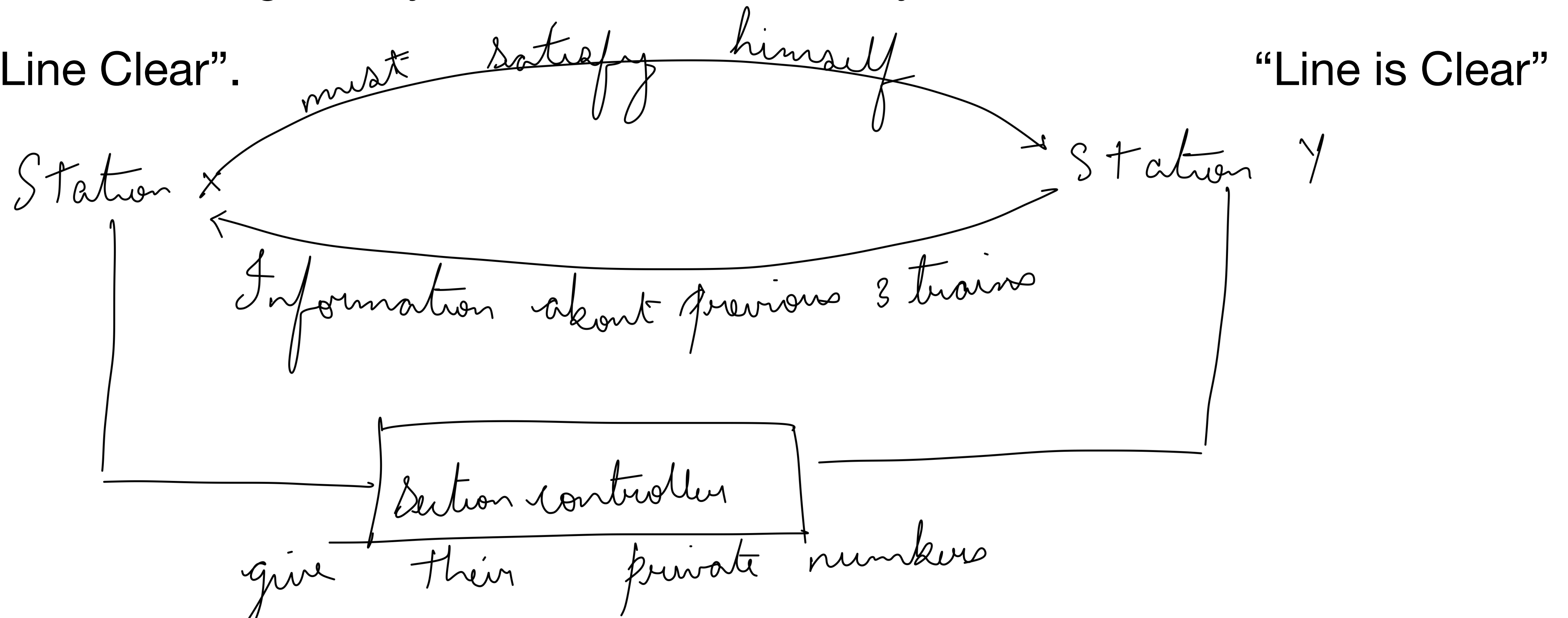
# Electrical Communication Instruments

- Block Telephone attached to the block instrument
- Station to Station fixed telephones wherever available
- Fixed Telephone such as railway autophones or BSNL
- Control Telephone
- VHF sets
- **Paper Line Clear** ticket shall be issued to the Loco Pilot
- Telephone messages shall be written and exchanged in the Train message register

# Train message register

- Serial Number of messages are attached to the private number to ensure that the line clear is given by the concerned Railway Station.

- “Is Line Clear”.



# **Rules for using paper line clear**

## **Block Telephone/fixed telephone/Railway Auto phone**

- Station master asking the line clear shall inform Section Controller on control phone and obtain his private number for every train working that way.
- Line clear by exchanging the messages and writing on form No. T/A 1425(Outward) and No.T/B 1425(inward) of message serial number, identification detail of previous 3 trains.

LINE CLEAR REPLY MESSAGE BOOK IN THE EVENT OF FAILURE /  
SUSPENSION / NON-PROVISION OF BLOCK INSTRUMENTS

FORM No. T/A 1425  
Sr. No. 1/25

( OUTWARD MESSAGE)

Train Receiving Station  
Details for ID of last three preceding trains cleared the block section

S.N.	Train No.	Up or Dn	** Double Line Arr. Time	** Single Line Arr. or Dep. Time	Pvt.No.
1.	2955	Dn	21-51 hrs.	NA	22
2.	2961	Dn	22-08 hrs	NA	29
3.	9005	Dn	23-47 hrs	NA	25

(A) Line Clear Reply

1. Date - 25.8.2006 Mode of communication- Fixed tele.
2. From Station Master (Name) B of Y (Station)  
To Station Master (Name) A of X (Station)
3. Train No. 2903 UP / DN Golden Temple Mail
4. Line Clear asked by X station at 00-03 hrs. and reply given at 00-05 hrs.
5. Last Train No. 9005 UP /DN left X Station at 23-34 hrs. and arrived at Y station at 23-47 hrs.
6. Private Number given ( in figures and words) 17 (Seventeen)

(B\*) Train Entering Section

7. Train No. 2903 UP /DN left X station at 00-11 hrs.
8. Train entering section report received from X station and acknowledged at 00-13 hrs.

(C\*) Train Out of Section

9. Train No. 2903 UP /DN arrived at 00-18 hrs.
10. Train out of section report given to X Station and acknowledged at 00-20 hrs.

(D\*) Line Clear Cancellation

11. Line clear cancelled at .....hrs. Reasons for cancellation .....

.....sd/-.....  
Signature of Station Master-Y

- \* Strike out whichever is not applicable.
- \*\* Fill either double line or single line column.
- NB- Separate Books to be maintained for each block section.

LINE CLEAR INQUIRY MESSAGE BOOK IN THE EVENT OF FAILURE/  
SUSPENSION/ NON-PROVISION OF BLOCK INSTRUMENTS

Train Despatching Station  
Details for ID of last three preceding trains cleared the block section

S.N.	Train No	Up or Dn	** Double Line Dep. Time	** Single Line Arr. or Dep. Time	Pvt. No.
1.	2955	Dn.	21-42 hrs.	NA	22
2.	2961	Dn.	22-01 hrs	NA	29
3.	9005	Dn.	23-34 hrs	NA	25

(A) Line Clear Inquiry

1. Date -25.08.2006 Mode of communication- Fixed Tele.
2. From Station Master (Name) A of X (Station)  
To Station Master (Name) B of Y (Station)
3. Train No. 2903 UP/ DN Golden Temple Mail.
4. Line Clear asked at 00-03 hrs. and reply received from Y station at 00-05 hrs.
5. Last Train No. 9005 UP/DN left X Station at 23-34 hrs. and arrived at Y station at 23-47 hrs.
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(D\*) Line Clear Cancellation

11. Line clear cancelled at .....hrs. Reasons for cancellation .....

.....sd /- .....  
Signature of Station Master-X

- \* Strike out whichever is not applicable.
- \*\* Fill either double line or single line column.
- NB- Separate Books to be maintained for each block section.

# Rules for working Line Clear

## Control Phone

- Inform the Section controller which shall be marked in the remarks column
- Section controller is the witness of all the transactions
- Exchanging messages similar to what was discussed earlier



# Rules for working Line Clear

## VHF sets

- Last resort till some other means of communication is restored

**Line Clear Tickets**

- When owing to failure or non provision of electrical block instruments, the authority to proceed is a Line Clear Ticket.
- Each ticket shall bear a serial number which shall be recorded in the Train Signal register.
- The ticket referred above shall be printed on a white paper with blue font.
- Water arrow mark pointing up and down shall be printed on the ticket to distinguish between up and down directions.

**BLOCK WORKING**

Form No.T/C 1425

Sr. No. \_\_\_\_\_

South Central Railway

**PAPER LINE CLEAR TICKET**

(Loco Pilot / Record)

Up

Number of Train \_\_\_\_\_ UP (Description) \_\_\_\_\_

Date \_\_\_\_\_

Time \_\_\_\_\_ hours \_\_\_\_\_ minutes.

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

To  
The Loco Pilot of Train No. \_\_\_\_\_ UP

The line is clear and you are authorised to proceed to \_\_\_\_\_ station

Last train No. \_\_\_\_\_ cleared section at \_\_\_\_\_ station.

Private No.(in words) \_\_\_\_\_ (in figures) \_\_\_\_\_

**AUTHORITY TO PASS SIGNAL AT 'ON' POSITION**

\*You are authorised to pass Last Stop Signal at danger, when the signal is interlocked with Block Instrument.

\_\_\_\_\_  
Signature of Station Master

Station Master Stamp

\*Strike out which ever is not applicable.

**Thank You**