

# SOUTH CENTRAL RAILWAY

Safety.387/Fly Leaf/8/2015

## Fly Leaf No. 08/2015

### Attention..... ALL CONCERNED

#### JOINT PROCEDURE ORDER NO.1/2015 OF 23.02.2015

**Sub: Shifting of Starter Signal to the boundary of track circuit ahead to increase berthing portion.**

**1.0 Brief:**

- 1.1** The Starter signal is located 11m from glued joint as per extant practice over SCR. This is to cater the requirement of Starter signal not going to danger with longhood leading diesel loco. Further, 13m rail length is given between glued joint and stock rail joint of points and crossings. This is to cater effective track locking during unsignalled movements. Thus a total length of 24m from Starter signal to nearest point SRJ is available in existing station yards.
- 1.2** (a) Due to the existing arrangements, the CSR on the berthing portion is reduced respectively from the available length on common loops of double lines / loop lines of single line (Starter to Starter).  
(b) 37M (24+13) is reduced from the available length on directional loops of double line (Starter signal to Stop board).
- 1.3** The CSR of loop lines and mainlines is 686m at most of the stations on single and double line sections on this Railway.
- 1.4** Operational constraints were expressed in dealing 59+1BV (eight wheeler) hauled by multi locos on loop lines with CSR of 686m. A minimum CSR of 692m is required to accommodate such formation. The constraint of insufficient CSR is leading to loss of punctuality of coaching trains since the Goods train is received on main line and coaching trains are dealt on loop lines.
- 1.5** Railway Board vide letter No. 2012/Sig/SEM-II/Misc dated 10.10.2012 have issued directions for shifting of Starter signals nearer to glued joints to mitigate the problem.

<b>S. No.</b>	<b>Section</b>	<b>Diesel / electric traction operation</b>	<b>Directives issued</b>
1(a)	Non-suburban not having AFTC	No long hood diesels	Shift Starter signals to the block joint and in no case beyond 3m for meeting technical and loco requirements.
1(b)	Non-suburban not having AFTC	With long hood diesel	Shift Starter signal to the block joint and in no case beyond 3m for meeting technical and loco requirements with 5 seconds delay in HR circuit.
2(a)	Suburban provided with DC/AC track circuit	AC locos, EMU	Shift Starter signal to the block joint and in no case beyond 3m for meeting technical and loco requirements.
2(b)	Suburban provided with DC/AC track circuit	AC locos, EMU & some diesel / DEMUs	Shift Starter signal to the block joint and in no case beyond 3m for meeting technical and local requirements with 5 seconds delay in HR circuit.

**2.0 Proposal for shifting of Starters**

- 2.1** Based on Board guidelines, SCR has decided to increase CSR in the existing feasible yards of BG where CSR is less than 700m, as per following three stages. Subsequent stage will require only when the required CSR is not achieved upto the previous stage/s.

- 2.2 **Stage I:** By shifting the Starter signal towards the glued joint (3.25m), vide 1(b) of above table, the 11m kept for diesel long hood is reduced to 3m.
- 2.3 **Stage II:** By fixing the glued joint assembly towards SRJ at a distance of 6.5m from SRJ, the track locking length will get reduced by 9.75m.
- 2.4 **State III:** By fixing the glued assembly welded to Point SRJ. The 13m kept for track locking is reduced to 3.25m (i.e., half of glued joint length 6.5m).
- 2.5 With this, the CSR may be increased to 696 – 700m. If it is not possible to increase to 700m, yard modification may be proposed through PWP.

### 3.0 **Railway Board stipulations**

3.1 While executing the changes at stations for shifting of Starter signals to increase CSR, the departments involved have to comply with the stipulations mentioned in Board's letter.

#### 3.2 **Traffic Department:**

**Following instructions may be incorporated in SR under GR 3.36** in addition to the existing one as per Board directives.

- (a) In an emergency, if a signal has to be put back to the 'on' position, before the movement of the train for which it was taken 'off', no points or lock shall be moved until train has come to stand except to prevent accident.
- (b) In case Starter and Advanced Starter taken 'off' for departing train i.e., trains starting from station after coming to stop are required to be put back for purpose of movement of another train (precedence or crossing), the following precautions must be taken;
  - i. Relevant Starter and Advanced Starter may be replaced to 'on' position. Then the LP of the train for which the signal had been taken 'off' should be advised by on duty ASM/Dy.SS through a secured means of

communication (Mobile Train Radio Communication etc.) to the effect that his signal has been replaced to 'on' and he should not start.

- ii. Whenever secured means of communication in the form of MTRC etc., is not available and in case of diesel long hood leading loco, the LP shall be advised through a written memo that his signal has been replaced to 'on' and he should not start.
- iii. Till the LP has been advised through a secured means of communication or through a written memo and his acknowledgement received, the route set should not be altered except to avert an accident.
- (c) Vide Board's instructions, following systems may be considered as 'secured means of communication' in regard to communication between SM and LP.
  - i. **GSM-R based MTRC (Mobile Train Radio Communication)**
  - ii. **TETRA-based mobile communication and**
  - iii. **Trunking radio (MPT-1327) and CTCSS VHF system**

SR stipulations vide 5.1, 5.2, 5.3 & 5.3.1 under SR 3.36 followed in spirit over SCR by Traffic Branch must continue to observe.

#### 3.3 **S&T Department**

S&T Department has to shift Starter Signal as per the directives mentioned in Para 1.5 table 1(b) of the above. The changes executed at site are to be incorporated in as made plans with information to CRS/SCC.

#### 3.4 **Engineering Department**

- i. While shifting Starter signal towards glued joint, it is to be ensured that the adequate distance of 120m is not reduced from the foot of the Starter Signal to the buffer stop in case of overshoot lines.
- ii. Fouling demarcation blocks are to be shifted wherever glued joints are shifted.

### **3.5 Mechanical Department**

The dimensions of the overhang of different rolling stock shall be less than 3.15m. In case if it more than 3.15m, the train is to be stopped in rear of Starter signal such that it clears the fouling in rear side also.

### **3.6 Electrical Department**

The dimensions of the overhang of different rolling stock shall be less than 3.15m. In case if it is more than 3.15m, the train is to be stopped in rear of Starter signal such that the train will not physically pass Starter signal and clears the fouling in rear side also.

## **4.0 Additional precautions to be taken before implementation**

**4.1** The LP and Guard shall be careful while starting Goods train. Backing to ensure proper coupling of CBCs (as per GM/SCR FAX Message No. M.109/Crew/Train parting dated 20.12.2005) will be done cautiously as

inner distance between block joint and SRJ of points is decreased. LP will inform Guard before backing. Guard in turn will ensure correct setting of points in co-ordination with SM and then only exchange 'all right' hand signals with LP to back the train. Minimum 5m clearance shall be ensured between BV and fouling point while receiving train on directional loop lines.

**4.2** It has to be ensured that existing approved CRS sanctioned dispensations under GR 3.40(3) (b) are not deviated and compromised.

**4.3** The sectional TIs / LIs shall counsel the SMs, LPs and Guards regarding the decrease in inter distance of Stop board / Starter and point SRJ and its implications on safety of train operations. After shifting Starter signal, Divisional Caution Order to be imposed suitably regarding the new location of signal for a period as stipulated in Manuals.

**4.4** SWOD & SWR are to be corrected as per above.

**4.5** Restrictions to be observed strictly.

**4.6** Unsignalled shunt movements without clamping all the motor points in route shall be avoided after Starter Signal shifted nearer to glued joint as the inter distance kept for track locking during unsignalled movement is further reduced.

## **5.0 Recommendations for new works**

**5.1** However, at new station yards being commissioned during doubling, new crossing stations, gauge conversions and new lines, CSR of 715m shall be made available at ESP and field execution stages as given below keeping more CAL length.

**5.2** On single line and common loops of double lines, 24m shall be made available on either side from Starter signal to SRJ of point. The resultant length from SRJ to SRJ of above lines will be  $715m + 24m + 24m = 763m$  (CAL).

**5.3** On double line section with directional loops 24m shall be made available from Starter signal to SRJ of points and 13m stop board to SRJ point respectively. Resultant length from SRJ to SRJ of above lines will be  $715m + 24m + 13m =$  CAL

(Sd/-)  
PCE

(Sd/-)  
CSTE

(Sd/-)  
COM

(Sd/-)  
CME

(Sd/-)  
CEE

**CHIEF SAFETY OFFICER**  
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