

Office of Sr. DEE/RSO/DLI Email: <a href="mailto:srdeersodli@gmail.com">srdeersodli@gmail.com</a> Divisional Railway Manager Office State Entry Road, New Delhi

No. 230/Elect/RSO/Safety Drive/2024

Dated: 28.02.2024

All Sr. CCs & CLIs JHL, JIND, ROK, SSB, DEE, DLI, ANVT, GZB, MTC, PNP, NDLS, HNZM, TKD, PWL

#### RSO SD-08/2024(Revised)

Sub: To avoid rolling down of Locomotive/train.

Ref: (i). CELE/NR Letter No. No.147-Elect/TRS/6/2 dated 28.02.24 & 12.01.24

- (ii). Dy.CEE/OP Letter 147-Elect/TRS/6/2 Part XXXII dated 19.03.21
- (iii) COM/G/NR's Letter no. 403-T/Misc/Rule/Optg/JPO/33 dated 09.07.2018
- (iii) S.R. 5.23 of G&SR book of NR

Recently there has been a case of rolling down of Train DMT/BOYN loco no 13646+14806/WDG3A in FZR division. In order to curb such incidents comprehensive instructions for stabling of vehicles/loads/trains/locomotives at station and in block section which is briefed as under as per G&SR 5.23:

#### 1. While stabling locomotive:

- 1.1 Parking/hand brakes should be applied fully.
- 1.2 Secure the loco with wooden plugs provided in loco under the wheels.
- 1.3 Ensure loco not moves with released condition of the loco brakes after conducting activities mentioned at s.n. 1.1 & 1.2 above.
- 1.4 Loco brakes should be applied fully with SA-9 & A-9.
- 1.5 Battery of loco to be switched off.

#### 2. While stabling load without loco i.e. loco being detached from the train:

- 2.1 BP pressure in train to be dropped to '0' by putting A-9 on emergency position before closing angle cocks between loco & leading wagon/coach of the train to ensure train brakes are applied fully.
- 2.2 Hand brakes in 6 wagons next to train engine will be applied by ALP. In case of coaching train, hand brakes to be applied in leading SLRs if provided.
- 2.3 Station staff & TM are also to act as per S.R. 5.23 to ensure to avoid rolling down of the train.
- 2.4 For reversal of locomotive, procedures laid down in Para "A & B" of the JPO issued by NRHQ vide letter under ref. (iii) are to be followed (copy attached).

#### 3. While stabling load with loco i.e. loco being also made dead:

- 3.1 Parking/hand brakes should be applied fully in loco & also in 6 wagons next to train engine by ALP. In case of coaching train, hand brakes to be applied in leading SLRs if provided.
- 3.2 BP pressure in train should be dropped to '0' by putting A-9 handle of loco on emergency position. A-9 not to bring back at release position but to keep at emergency while leaving loco.
- 3.3 Loco brakes also to be applied fully with SA-9 handle.
- 3.4 Secure the loco with wooden plugs provided in loco under the wheels preferably under outer most wheels at either end.
- 3.5 Battery of loco to be switched off.
- 3.6 Station staff & TM are also to act as per S.R. 5.23 to ensure to avoid rolling down of the train.
- 3.7 Before leaving station/yard, LP & TM should jointly record in a register maintained by SM/YM that the loco & load has been secured as prescribed above.

- 4. Action to be taken by Loco Pilot/Assistant Loco Pilot & TM when the train is stalled in block section due to accident, failure, obstruction or any other reasons:
  - 4.1 LP/ALP & TM should protect the train as per provision of G & SR 6.03.
  - 4.2 The train should be secured by applying loco brakes (SA-9, A-9 & hand/parking brake) and hand brakes of at least six wagons at either end of the train. In case of coaching trains, the TM should apply hand brakes of the SLR.
  - 4.3 The hand brake should be applied by ALP from leading end and by the TM from the rear end.
  - 4.4 In case the train is being worked without TM, the duties of the TM shall devolve on the ALP.

#### 5. Other precautions:

- 5.1 LP will not leave the loco unmanned. In case he is required to leave the loco unmanned, he should do so only after receiving written authority from the SM/YM and thereafter ensuring activity done as above.
- 5.2 If MR pressure starts dropping while train is stationary, LP is to secure the loco with wooden plugs under the wheels. Since MR pressure gauge is not provided in B.van & TM can't notice drop the MR pressure therefore LP will inform the TM regarding drop of MR pressure & thereafter TM will secure the train with wooden plugs under the wheels of last vehicle.
- 5.3 Proper handing over -taking over of train by the crew should be ensured (inside the cab and not outside).
- 5.4 Above procedure of stabling is for stations with gradient of up to 1:400. Additional precautions to be taken while stabling loco/train/vehicles at a station with gradient of 1:400 or steeper as instructed by Division in SWR/WTT/other instruction.
- 5.5 All LPs, ALPs & LPSs should be aware of gradients at Station/Yard/Sidings and block sections.
- 5.6 While energizing stabling loco; hand/parking brakes applied in loco/train & wooden plugs provided under wheels should be released/removed only after emerging loco & creating MR/BP pressure fully, applying loco brakes by SA-9 & conducting pressure continuity test as per laid down procedure.
- 5.7 While changing cab in single unit or multiple unit loco, loco brake should be applied fully with SA-9 and also with A-9 putting on full service to avoid rolling down. After going in rear cab, proper application & releasing of loco brake & BP pressure also to be ensured after energizing & before moving loco.

All CLIs has been advised to launch a safety drive for 15 days with immediate affect with special emphasis on the above instructions. Ambush checks also to be conducted to ensure compliance of above instructions. And report of drive to be sumbit on 14.03.24 on CLI Whatsapp group for further submission to HQ office.

DA: As above

\$r.DEE/RSO/DL

Copy to: For kind information please.

- PS to DRM for kind information of DRM please.
- CELE/NR, CRSE/Fr./NR, NDBH.
- ADRM/OP.
- Sr. DSO/DLI.
- Principal ETC/GZB, Principal DTC/TKD, Principal RSTC/ Shakurbasti.
- CLI/BTC/TKD, CTC/NDLS Control

RSO SD-08/2024 (Annexure)						
S.no.	Check of Aspect		Outcome			
1.	No. of ambush checks conducted to check proper procedure being adopted for stabling of loco/trains					
2.	Abnormalities observed with nature	On account of LPs/ALPs/LPSs				
		On account of TMs				
		On account of station staff				
3.	Details of Abnormalities					
4.	Action taken	9				
5.	No. of staff counseled	LPs				
		ALPs				
		LPSs				
6.	Action Plan to curb irregularities reported					

#### Northern Railway

Headquarters Office, Baroda House, New Delhi -110001.

No.147-Elect/TRS/6/2

Dated: 28.02.2024

Sr. Divnl. Elect. Engineer/ RSO, Northern Railway, D.R.M. Office, UMB, NDLS, MB &LKO. Sr. Divnl. Mech. Engineer/ O&F,
Northern Railway
D.R.M. Office
FZR.

Sub: To avoid rolling down of Locomotive/train.

Ref: (i) NRHQ Letter of even no. dated 12.01.2024 & 19.03.2021

(ii) COM/G/NR's Letter no. 403-T/Misc/Rule/Optg/JPO/33 dated 09.07.2018

(iii) S.R. 5.23 of G&SR book of NR

Recently there has been a case of rolling down of Train no. DMT/BOYN, Loco no. 13646+14806/WDG3A in FZR division. In order to curb such incidents comprehensive instructions for stabling of vehicles/loads/trains/locomotives at station and in block section were issued by NRHQ vide letters under ref. (i) and vide COM/G/NR's Letter under ref(ii) above and G.&S.R. 5.23 of NR needs to be followed, which is briefed as under:

#### 1. While stabling locomotive:

- 1.1 Parking/hand brakes should be applied fully.
- 1.2 Secure the loco with wooden plugs provided in loco under the wheels.
- 1.3 Ensure loco does not move with released condition of the loco brakes after conducting activities mentioned at s.n. 1.1 & 1.2 above.
- 1.4 Loco brakes should be applied fully with SA-9 & A-9.
- 1.5 Battery of loco to be switched off.

#### 2. While stabling load without loco i.e. loco being detached from the train:

- 2.1 BP pressure in train to be dropped to '0' by putting A-9 on emergency position before closing angle cocks between loco & leading wagon/coach of the train to ensure train brakes are applied fully.
- 2.2 Hand brakes in 6 wagons next to train engine will be applied by ALP. In case of coaching train, hand brakes to be applied in leading SLRs if provided.
- 2.3 Station staff & TM are also to act as per S.R. 5.23 to ensure to avoid rolling down of the train.



2.4 For reversal of locomotive, procedures laid down in Para "A & B" of the JPO issued by NRHQ vide letter under ref. (ii) are to be followed (copy attached).

#### 3. While stabling load with loco i.e. loco also being made dead:

- 3.1 Parking/hand brakes should be applied fully in loco & also in 6 wagons next to train engine by ALP. In case of coaching train, hand brakes to be applied in leading SLRs if provided.
- 3.2 BP pressure in train should be dropped to '0' by putting A-9 handle of loco on emergency position. A-9 not to bring back at release position but to keep at emergency while leaving loco.
- 3.3 Loco brakes also to be applied fully with SA-9 handle.
- 3.4 Secure the Icco with wooden plugs provided in loco under the wheels preferably under outer most wheels at either end.
- 3.5 Battery of loco to be switched off.
- 3.6 Station staff & TM are also to act as per S.R. 5.23 to ensure to avoid rolling down of the train.
- 3.7 Before leaving station/yard, LP & TM should jointly record in a register maintained by SM/YM that the loco & load has been secured as prescribed above.

## 4. Action to be taken by Loco Pilot/Assistant Loco Pilot & TM when the train is stalled in block section due to accident, failure, obstruction or any other reasons:

- 4.1 LP/ALP & TM should protect the train as per provision of G & SR 6.03.
- 4.2 The train should be secured by applying loco brakes (SA-9, A-9 & hand/parking brake) and hand brakes of at least six wagons at either end of the train. In case of coaching trains, the TM should apply hand brakes of the SLR.
- 4.3 The hand brake should be applied by ALP from leading end and by the TM from the rear end.
- 4.4 In case the train is being worked without TM, the duties of the TM shall devolve on the ALP.

#### 5. Other precautions:

- 5.1 LP will not leave the loco unmanned. In case he is required to leave the loco unmanned, he should do so only after receiving written authority from the SM/YM and thereafter ensuring activity done as above.
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not provided in B.van & TM can't notice drop the MR pressure therefore LP will inform the TM regarding drop of MR pressure & thereafter TM will secure the train with wooden plugs under the wheels of last vehicle.

- 5.3 Proper handing over/taking over of train by the crew should be ensured (inside the cab and not outside).
- 5.4 Above procedure of stabling is for stations with gradient of up to 1:400. Additional precautions to be taken while stabling loco/train/vehicles at a station with gradient of 1:400 or steeper as instructed by Division in SWR/WTT/other instruction.
- 5.5 All LPs, ALPs & LPSs should be aware of gradients at Station/Yard/Sidings and block sections.
- 5.6 While energizing stabling loco hand/parking brakes applied in loco/train & wooden plugs provided under wheels should be released/removed only after emerging loco & creating MR/BP pressure fully, applying loco brakes by SA-9 & conducting pressure continuity test as per laid down procedure.
- 5.7 While changing cab in single unit or multiple unit loco, loco brake should be applied fully with SA-9 and also with A-9 putting on full service to avoid rolling down. After going in rear cab, proper application & releasing of loco brake & BP pressure also to be ensured after energizing & before moving loco.

Special safety drive is to be launched for 15 days with immediate affect with special emphasis on the above instructions. Ambush checks also to be conducted to ensure compliance of above instructions. Divisional Officers/CLIs are to involve themselves in the drive and effective follow-up action to be taken on all the deficiencies and irregularities noticed. Report of the drive, bringing out systematic deficiencies, and action plan with timeline to be sent to this office latest by 15.03.2024 in the format attached as an annexure.

DA: As above

(Deepak Grewal)

Chief Electrical Loco Engineer

#### Copy to:

- 1) PCEE/NR: for kind information please
- 2) PCSO/NR: for kind information please

#### NORTHERN RAILWAY

Headquarters Office, Baroda House, New Delhi- 110001.

No.147-Elect/TRS/6/2

Dated: 12.01.2024

Sr.Divnl. Elect. Engineer/RSO,
Northern Railway,
D.R.M. Office,
DLI, UMB, MB & LKO.

Sr.Divnl. Mech.Engineer (O&F)
Northern Railway,
D.R.M. Office,
FZR

Sub: Enhancing security measures for Railway Operations.

Ref: PCEE/NR Note No. E-123-Elect./Gaz/Secret/5011, dated 12.01.2024.

In reference to above, following measures must be ensured by divisions:

S.No.	Items	Action to be taken as per G&SR No.5.23.
2.	Locking and ensuring security of stabled locomotives: Huge number of coaches, engines etc. that continue to be parked at isolated locations in yards needs more attention. These rolling stocks should be kept in locked condition.	S.R. 5.23/3  (a) - Action by Loco Pilot/Assistant Loco Pilot before leaving the locomotive, In case Load/train is stabled with locomotive attached or light engine (s) is/are shut down or stabled:  i) Application of both SA-9 and A-9 brakes;  ii) Application of hand brake and parking brake in loco;  iii) Application of hand brakes of at least 6 wagons at either end of the train;  iv) Secure the loco with wooden wedges provided on the loco;  b) i) Loco Pilot while on duty should not leave the locomotive unmanned. In case, he is required to leave the locomotive unmanned, he should do so only after receiving written authority from the Station Master/Yard Master and ensuring 3(a)(i)(ii) (iii)&(iv) above.  ii) Before leaving the station/yard, the loco Pilot and Guard should jointly record in a register to be maintained with Station Master/Yard Master that the load & loco has been secured as prescribed above.
3.	Ensuring that both the departmental & contractual staff should have the authorized ID card available with them when working in station premises and rolling stock.	Valid IDs of staff working on station/maintena area must be be ensured.

Compliance of foresaid instructions to be submitted to this office at the earliest.

DA: As above

(Deepak Grewal) Chief Electrical Loco Engineer

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#### **NORTHERN RAILWAY**

No. E-123-Elect./Gaz/Secret/5011

Dated: 12.01.2024

#### NOTE

Sub: Enhancing Security Measures for Railway Operations.

To ensure safety/security at Railway premises/Rolling Stock, the following measurements must be ensured by Sr.DEEs working under the control of respective HODs:-

SNo.	Action to be taken		
1.	Adequate & sufficient lighting of following areas:-		
i)	Circulating area/Access Control	Proper Illumination of passenger areas.	
ii)	Platforms  Electric fittings to be in safe & working condition  At Washing line/Coach Maintenance Depot  Electric fittings to be in safe & working condition  Proper lighting arrangements in the coach maintenance Depot		
iii)			
iv)	Yard Properly Illumination of yard		
2.	Locking and ensuring security of stabled locomotives	Huge number of coaches, engines etc. that continue to be parked at isolated locations in yards needs more attention. These rolling stocks should be kept in locked condition.	CELE
3.	Ensuring that both the departmental & contractual staff should have the authorized ID card available with them when working in station premises and rolling stock.		All HODs

Compliance may be obtained from divisions on privaity.

All HODs

## File No.NR-HQ0ELEC(LOCO)/352/2020-O/o Dy. CEE/RS/HQ/NR Northern Railway

Headquarters Office Baroda House New Delhi-110001

Dated: 19.03.2021

No-147-Elect/TRS/6/2, Part XXXII

Sr. Div Elect Engineer/ TRD

Sr. Div Elect Engineer/ RSO Northern Railway D.R.M. Office, New Delhi &Lucknow

Northern Railway
D.R.M Office
Ambala, Firozpur& Moradabad

Sr. Div Mech Engineer/ Power
Northern Railway
D.R.M. Office,
New Delhi

Sr. Div Mech Engineer/O&F Northern Railway D.R.M. Office, Ambala, Firozpur, Lucknow& Moradabad

Sub: To avoid rolling down of Loco/Train.

Ref: RB's L.No.2021/Elect(TRS)/113/Safety Misc. dated 18.03.2021.

Railway Board's letter under reference is attached herewith for necessary action. Special drive in this regard may be launched for 15 days, i.e. 20.03.2021 to 03.04.2021. Report of the drive to be sent to this Office after completion.

DA: As above

(Neeraj Gupta)

Dy. CEE/OP

For Pr.Chief Elect. Engineer

Copy to: CRSE/O&F for kind information





#### भारत संस्कार GOVERNMENT OF INDIA रेल मंत्रालय MINISTRY OF RAILWAYS (रेलवे बोर्ड RAILWAY BOARD)

No. 2021/Elect.(TRS)/113/Safety Misc.

New Delhi, Dated: 18-03-2021

General Managers (Elect.), All Zonal Railways (including KRCL)

Sub: Rolling down of locomotives/train.

Ref: (i) Railway Board's letter No. 2007/Elect.(TRS)/113/7 dated 19.01.2012

- (ii) Railway Board's letter No. 2017/ Elect.(TRS)/113/Safety Misc. dated 13.11.2017
- (iii) Railway Board's letter No. 2012/Safety(A&R)/19/1 dated 24.02.2012
- (iv) Railway Board's letter No. M(Safety)/7/31 dated 13.11.2995

Incidences of train/locomotive rolling down on graded section are continuing. In a recent case, Train No. 05326 rolled down alongwith passengers on 17-03-2021 in NER. Instructions for stabling of vehicles/loads/trains/locomotive at station and in in block issued by Railway Board vide letters referred above needs to be followed religiously. Summary of the instructions is reiterated as under:

- (i) Loco Pilot while on duty should not leave locomotive unmanned;
- (ii) Application of SA-9 and A-9 brakes; physically check if brake application has actually taken place.
- (iii) Also, apply locomotive independent brakes on the banking locomotives, if the train is banked.
- (iv) Application of hand brake and parking brake;
- (v) In case, the detention is likely to be of more than 30 minutes, wedging of wheels of locomotives using wooden wedges as per RDSO's approved design, provided on locomotive, should be done, along with application of Guard's brakes to avoid rolling down of the train;

- (vi) Hand brake/parking brakes of locomotive should be ensured in working condition.
- (vii) In case train/loco stalled in block section due to accident, failure, obstruction or any other reason, instructions contained in para 5 of Board's letter under reference (iii) should be followed.

Copies of letters under reference are available in elocos website for reference and necessary action.

Concerned staff needs to be sensitized by proper counseling by supervisors/officers covering all the instructions/procedures issued by Railway Board and RDSO/Zonal Railways in this regard, under advice of confirmation of compliance of the above instructions to this office.

निदेशक विद्युत अभियांत्रिकी (चल स्टॉक)

फ्लोर सं : 1, कमरा सं. : 113

रेलवे बोर्ड

टेली और फैक्स: 011- 23387736 ई मेल: deers@rb.railnet.gov.in मुविसो अन्द CELE

Northern Railway

CLI/HQ

No.403-T/Misc/Rule/Optg/JPO/33

Headquarters office, Baroda house, New Delhi

Dated: 09/07/2018

Divisional Railway Manager Northern Railway Delhi, Ambala, Moradabad, Firozpur & Lucknow

Sub:- JPO for standard shunting guidelines.

A revised JPO is attached herewith for implementation on all stations of the divisions. This JPO supersedes the earlier JPO issued vide this office letter of even no. dated 08/05/2018.

DA/ as above,

(Rajeev Gangal) COM/G, NR

Copy to:

CSO/NR for kind information.



#### Northern Railway

Headquarter Office Baroda House New Delhi

#### JPO for Standard Shunting guidelines

This JPO supersedes the earlier JPO issued vide letter no. 403-T/Misc/Rule/Optg/JPO/33 dated 08.05.2018

#### I. Background:

Recently, an accident of train rolling down in a block section had occurred at Titlagarh station of Sambalpur division in East Coast Railway. Twenty coaches of the Train No. 18406 Exp. had rolled down without engine towards KSNG station. This seems to have happened due to non observance of the rule of reversal of the Loco at station and Station Master allowing the train into section closing the trap point. Railway Board has desired for issue of a Joint Procedure Order (JPO) by the Zonal Railways based on local conditions to avoid any such incidence.

#### II. Rule position:

Vide Para 1.02(49) of GR, "Shunting means the movement of a vehicle or vehicles with or without an engine or of any engine or any other self-propelled vehicle, for the purpose of attaching, detaching or transfer or for any other purpose".

Various rules governing shunting as mentioned in G&SR of Northern Railway are given below:-

- (i) Control of shunting- GR 5.13 along with SR 5.13/1 to 5.13/18;
- (ii) Responsibility for shunting- GR 5.14 along with SR 5.14/1 to 5.14/3;
- (iii) Shunting at station under Centralized Traffic Control- GR 5.15;
- (iv) Shunting during reception of trains- GR 5.16 along with SR 5.16/1;
- (v) Shunting near level crossing- GR 5.17;
- (vi) Shunting on gradients- GR 5.20;
- (vii) Loose shunting- GR 5.21 along with SR 5.21/1 to 5.21/3.

Further, Station Working Rules (SWRs) of any station contain detailed procedural guidelines/instructions governing shunting in station premises and yards under the control of any such station. These detailed procedural guidelines are specific to a particular station and may vary from station to station. Individual Divisions may like to examine the adequacy and relevance of these Rules in today's traffic scenario.

These rules stipulated under G&SR and SWRs, as applicable, shall be scrupulously followed.

#### III. Analysis:

The incident narrated above involving reversal of locomotive is only an example of various situations where shunting may take place. From the definition of shunting it is apparent that in order to prevent any mishap of the nature as narrated above, due attention needs to be given at the time of shunting for the purpose of:

- (i) Detachment of locomotive from the train/rake or a part of train/rake;
- (ii) Attachment of locomotive to the train/rake;
- (iii) Transfer of train/rake from one location to another.

  (Here no attachment/detachment of locomotive from/to train/rake is taking place.)

The above situations, which are by no means exhaustive, may arise in following scenarios:-

- (i) Change of traction;
  - (ii) Reversal of locomotive;
  - (iii) Detachment of a ciesel locomotive for fuelling at a junction or terminal station;
  - (iv) Attaching or detaching coaches/ wagons to/from a rake/train;
  - (v) Placement/removal of coaching rakes from platform to washing/stabling lines and vice-versa;
- (vi) Placement/removal of wagons/rakes to and from sidings/goods shed/sick line, etc.

In all the aforementioned cases, unsafe situation arises when the entire rake or part of rake (wagons/coaches), whether attached to a locomotive or not, has nil or inadequate brake-power to meet the needs of the situation, during the course of shunting. This JPO seeks to address the above situation in order to prevent unsafe working.

### IV. Procedure to be followed during shunting:

The cardinal principle in all cases involving shunting is to ensure that the coaches/wagons/rakes whether attached to a locomotive or stabled even for a short duration, have adequate brake power and are properly secured so that they do not roll down on their own in case of gradients or on impact during shunting or for any other reason.

#### A. Shunting in case of Coaching rakes/trains:

Shunting Master/Guard/Yard Master/Station Master, as the case may be, shall supervise the entire Shunting activity related to attaching/detaching, etc. of locomotive including reversal of all passenger/mail/express trains.

Following situations may arise in the course of shunting:

# 1.0 When the locomotive and the rake constitute two separate & distinct units during shunting and the locomotive is to be detached from and/or attached to the rake which was stabled for a short duration:

#### (i) Precautions to be taken before detaching the locomotive:

The objective here should be to secure the rake before the locomotive is detached. The set of activities would include:

- a. On arrival of the train, LP will ensure full application of brakes (both train & locomotive). The door of guard's compartment of front SLR will be opened by the ALP.
- b. Shunting staff/ALP shall apply the handbrake of the front SLR after the train comes to a standstill.
- c. Incoming Guard of the train shall apply handbrakes in the rear SLR.
- d. The shunting staff shall ensure placing of two iron skids/wooden wedges under the outermost pair of the wheels of the outermost vehicle/coach at each end before the loco is detached.

## (ii) Precautions to be taken while detaching the Locomotive:

a. Shunting staff shall first close both FP & BP cut off angle cocks of locomotive side as well as train side and then uncouple the BP & FP air



hoses between locomotive and the train and place them on their respective hangers.

- b. BP cut off angle cock of the rake/train shall be opened by the shunting staff to drain out the BP pressure from the brake pipe to ensure full application of brakes.
- c. Shunting staff shall 'open' the screw/ CBC coupling. If CBC operating handle is not provided then locking pin should be used for opening of CBC coupling thereby allowing the locomotive to get detached from the train and proceed forward.
- d. The BP cut off angle cock of the train should be closed once the BP pressure is drained out.
- e. Brakes of four coaches on each end of the train/rake left behind shall be left un-released by the C&W staff. Brakes of balance number of coaches, if any, can be released manually by C&W staff.
- f. Additional precautions shall be taken while detaching the locomotive from the rake at a location having gradient of 1 in 400 or steeper as may have been specified under approved special instructions (by CRS) and/or as mentioned in SWR of the subject station.
- g. If the outgoing locomotive is likely to be attached after a gap of more than 2 hours after detachment of the incoming locomotive or in case no instructions are provided under para 'f' above, then the entire rake shall be left in un-released condition.

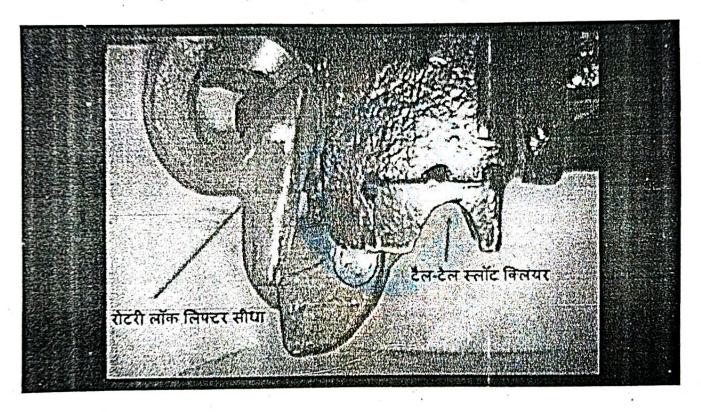
## (iii) Precautions to be taken while Attaching Loco on the rake/train

The objective here should be to ensure that the rake, at the time of attachment of the locomotive, does not roll down on impact. The set of activities would include:

- a. Shunting staff should ensure that locomotive to be attached is stopped at a suitable distance from the rake, and in case no distance is specified at a particular station then approx. 20 m before the rake/train and it then proceeds at walking speed to couple with the train.
- b. After attaching the locomotive to the rake/train, following should be ensured:

- The effectiveness of the coupling shall be ensured by the LP and the Shunting Supervisor by slightly inching the train forward.
- Shunting staff/Shunting Supervisor shall ensure tightness of the screw/locking of CBC. It shall be ensured that:
  - > CBC lock pin is inserted properly in the groove at the bottom of the coupler;
  - In case of 'H' type coupler, rotary lock lifter rib of CBC of locomotive and coach shall be in vertical position (facing towards the ground).
  - > V-groove of both the locomotive and the coach is clear of any obstruction.

(Please refer to the diagram below)



- After attaching the locomotive the LP shall apply the Loco brakes, SA-9.
- FP&BP air hoses of the locomotive and the train shall be coupled by C&W staff.
- FP angle cock of the rake/train shall be opened by the C&W staff.
- FP angle cock of the loco shall be opened by the C&W staff.
- After ensuring 6 kg/cm<sup>2</sup> pressure in FP in engine by the LP and 5.8 kg/cm<sup>2</sup> in the rear SLR guard compartment by the guard, BP angle cock of the rake/train shall be opened by the C&W staff.
- BP angle cock of the engine shall be opened by the C&W staff.

 5 kg/cm<sup>2</sup> pressure in engine by the LP and 4.8 kg/cm<sup>2</sup> pressure in the rear SLR shall be ensured by guard and C&W staff.

 Iron skids/ wooden wedges which were placed on either end of the train for securing the rake/train shall be removed by the Shunting staff.

- The 4 coaches on each end or the entire rake, as the case may be, which had been left unreleased, should now be released by the C&W staff.
- Releasing of handbrake of front SLR Guard compartment should be done by the shunting staff and handbrake of rear SLR by the guard.
- c. ALP shall ensure that the front SLR Guard compartment door is locked.
- d. Continuity Test shall be carried out as per laid down norms, before starting the train.
- 2.0 When the locomotive along with a part of the rake attached to it and the balance part of train/rake constitute two separate & distinct units during shunting and the locomotive along with part rake is to be detached from and/or attached to the rest of the rake which was stabled for a short duration:

If the locomotive, which is considered singularly detached from the rake/train at Sr. no.1 above, is also carrying a part of the rake along with it at the time of detachment/ attachment then the activities as defined in paras (i)-(iii) above shall continue to hold good for the part of the rake left behind (stabled).

For the part of the rake attached to the locomotive it should be ensured that the locomotive maintains the stipulated BP pressure of 5.0 kg/cm² and all coaches attached to the locomotive irrespective of their number shall remain connected to such BP pressure from the locomotive.

#### B. Freight trains:

Following situations may arise in the course of shunting:

- 1.0 When the locomotive and the train/rake constitute two separate & distinct units during shunting and the locomotive is to be detached from and/or attached to the rake which was stabled for a short duration:
- (i) Precautions to be taken before detaching the loco:

The objective here should be to secure the rake before the locomotive is detached. The set of activities would include:

- a. On arrival of the train, at its destination (yard/siding/goods shed/sick line, etc.) or at a roadside station where shunting is required to be done the LP of the train will ensure full application of brakes (both train & locomotive).
- b. The shunting staff/ALP/Guard, as the case may be, shall ensure placing of minimum four sprags/ wooden wedges/ Skids, to be procured from the Station Master of the station, under the outermost pair of wheels of the front and rear vehicles.
- c. Additional precautions shall be taken while detaching the locomotive from the rake at a location having gradient of 1 in 400 or steeper as may have been specified under approved special instructions (by CRS) and/or as mentioned in SWR of the subject station.
- d. If no instructions exist under para 'c' above, or if the outgoing locomotive is likely to be attached after a gap of more than 2 hours after detachment of the incoming locomotive then Shunting staff/ALP shall apply handbrakes of at least six wagons next to the locomotive after the train comes to a standstill at the desired location and Shunting staff/Guard of the incoming train shall apply handbrakes in six rearmost wagons and the brake van. The handbrakes must be fully tightened.

## (ii) Precautions to be taken while detaching the Locomotive:

- a. Shunting staff shall first close BP cut off angle cocks (also FP, if available,) of locomotive side as well as train side and then uncouple the BP (& FP) air hoses between locomotive and train and place them on their respective hangers.
- b. Shunting staff shall 'open' the screw/ CBC coupling. If CBC operating handle is not provided then locking pin should be used for opening of CBC coupling thereby allowing the loco to get detached from the train and proceed forward.
- c. Brakes of none of the wagons should be released by the C&W staff.

## (iii) Precautions to be taken while Attaching Locomotive on the rake/train:

- a. Shunting staff should ensure that the locomotive to be attached is stopped at a suitable distance from the rake, and in case no distance is specified at a particular station then approx. 20 m before the rake/train and it then proceeds at walking speed to couple with the train.
- b. After attaching the loco to the rake/train, following should be ensured:
  - The effectiveness of the coupling shall be ensured by the LP and the Shunting Supervisor by inching the train slightly.
  - Shunting staff/shunting supervisor shall ensure tightness of the screw/locking of CBC in the same manner as explained in para A1.0(iii), above.
  - After attaching the locomotive the LP shall apply the Locomotive brakes (SA-9).
  - BP air hoses of the locomotive and the train shall be coupled by C&W staff.
  - BP angle cock of the rake/train shall be opened by the C&W staff.
  - BP angle cock of the engine shall be opened by the C&W staff.
  - 5 kg/cm<sup>2</sup> pressure in engine by the LP and 4.8 kg/cm<sup>2</sup> pressure in the brake van shall be ensured by guard and C&W staff.
  - Iron skids/sprags/wooden wedges on either end of the train which were placed for securing the rake/train shall be removed by the Shunting staff.
  - The rake should be released by the C&W staff.
  - c. Where FP is also provided then the procedure will be same as in case of para A1.0(iii) b.
  - d. Continuity Test shall be carried out as per laid down norms, before starting the train.
- 2.0 When the locomotive along with a part of the rake attached to it and the balance part of train/rake constitute two separate & distinct units during shunting and the locomotive along with part rake is to be detached from and/or attached to the rest of the rake which was stabled for a short duration:

If the loco, which is considered singularly detached at Sr. no.1 above, is carrying a part of the rake along with it at the time of detachment/ attachment

then the activities as defined in paras (i)-(iii) above shall continue to hold good for the part of the rake left behind(stabled). For the part of the rake attached to the locomotive it should be ensured that the locomotive maintains the stipulated BP pressure of 5.0 kg/cm<sup>2</sup> and all wagons remain connected to such BP pressure from the locomotive.

In both cases A & B, above, the following provisions shall also apply:

- (i) Proper communication should be maintained throughout between Operating, Loco and C&W staff.
- (ii) In case of wayside stations where C&W and shunting staff is not available, the activities indicated against C&W staff shall be carried out by the Points man. In case the Points man is not available then the said responsibility shall devolve upon the ALP.
- (iii) Entire set of activity stated above needs to be executed within the time allotted.
- C. Instructions with respect to "Securing of vehicles/loads/trains/locomotives at stations and in block sections" have been stipulated in SR Paras 5.23/2 & 5.23/3 which may be referred to.

#### Disclaimer:

This IPO does not supersede any existing rules laid down in various codes, manuals etc. covering the above aspects. The objective of the IPO is to lay down a clearly defined procedure, dealing with shunting based on the practices already in vogue, and its implementation in a scrupulous manner.

CRSE/Chg

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