



General Manager's Office
Engineering Department
Jabalpur-482 001 (M.P.)

No. W-HQ/W-4/Track-II/Policy/Circular/14

Date: 20.10.2020

CTE CIRCULAR NO. 14

Sub: Ballast Unloading from Ballast DMTs (BOBYN Trains)

Ref:

- (i) RB L.No. 2014/CE-II/Accidents/14 dated 11.06.14, RB L.No. 2011/CE-II/Accident/Policy dated 18.12.15
- (ii) PCE/WCR L.No. W-HQ/W-4/Track/Ballast/73-V dated 09.08.19 (Annexure 1)
- (iii) PCE Circular No. 7 dated 08.06.2011 with Corr. Dated 22.08.17 & 03.07.20

1. Derailments of BOBYN trains primarily occur due to the following 03 reasons:

- i. Obstruction of track with excessive unloading of Ballast
- ii. Jamming of flange-way between running rail and check rail at turnouts & Level crossings
- iii. Partial unloading of wagons leading to uneven loading.

In order to avoid such mishaps, PCE/WCR vide ref. (ii) above had issued specific precautions (attached as Annexure 1) to be taken while training out ballast through Ballast Hoppers Trains. Railway Board vide ref. (i) above had also issued certain instructions to be followed while unloading ballast trains and instructions/guidelines/precautions for working of material trains/ballast trains are mentioned in Chapter 8 Part C & D of IRPWM (Jun'20) and Para 4.62 - 4.64 of GR.

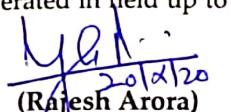
2. However, Off late, derailments of BOBYN trains have taken place in WCR mainly due to uneven unloading of ballast. Therefore, in order to avert such incidents, A Checklist has been attached as Annexure 2 which is to be followed while working of Ballast Trains. Records which are to be maintained by every SSE/P-Way Incharge for **Unloading of Ballast Trains (BT)** are:

- a. *Ballast Unloading Register (Details in Checklist)*
- b. *Assurance Register*

3. Some important precautions have been re-iterated below which should be pasted along with PCE Instructions & Circular(ref (ii) & (iii)) in Assurance Register and read/signed by all SSE/JE P-Way after every 03 months:

- (i) Only one Hopper is unloaded at a time when train moves at walking speed.
- (ii) The Engineering Official-in-charge (OIC) should properly instruct the labourers as to when to open or close the Hopper doors (so as to avoid uneven unloading of the ballast)
The ballast must not be unloaded on or within 10m of LCs, Points & Crossings and Girder bridges. At these locations, ballast must be shifted manually from the ballast unloaded ahead or behind.(Ballast should not be left between checkrail & running rail in LC, sharp curves and points & crossings zone; and guard rails & running rails on ballasted deck bridges)
- (iii) BT should not be stopped while unloading and if it is stopped due to any reason, the same should not be moved without ensuring the clearance of ballast from track under the wheels.OIC to ensure that No ballast is left causing infringement/obstruction to the running rails.
- (iv) It should be ensured by OIC during unloading that all 04 doors are opened at same time to avoid uneven unloading of ballast. If case of any difficulty in opening of any gear/door, complete BOBYN Wagon should be left and should not be partially unloaded under any circumstance. However, if any wagon remains partially loaded due to any reason, the same must be emptied manually/ moved with restricted speed/distributed evenly manually duly observing all precautions before issuing Complete Unloading Certificate by OIC (Movement of Partially loaded BOBYN Wagon to be avoided on curves> 4 Degree)

These instructions must be followed scrupulously and should be reiterated in field up to the lowest level.


(Rajesh Arora)

Chief Track Engineer

Annexure 1

West Central Railway



Office of the
General Manager
Engineering Department
Jabalpur

No. W-HQ/W-1/Track/Ballast/73-V

Date: 09.08.2019

Sr. DEN/Co
JBP, BPL & KOTA Divn.

Sub: Precautions to be taken while training out of ballast through ballast hopper.
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In the past, several derailments have taken place in other railways due to uneven unloading of ballast, primarily due to non-opening of the doors while unloading of ballast in block section. In order to avoid such mishaps, following precautions are advised, which can be scrupulously followed by the divisions:

(A) Before loading of Hopper: It should be ensured that

1. Ballast rake is having valid BPC.
2. All the hopper doors are in proper working order. To ensure this all the doors of all the hoppers should be physically checked for their proper operation before every round of loading. The condition of door should be recorded in a register kept at depot. For this purpose, following proforma may be adopted.

Date of checking	BOBYNs in which all the doors are working properly	BOBYNs in which oiling and greasing done and doors became operational	Deficiencies observed			Any other remark of the inspecting officials	Signature of the inspecting officials
			BOBYNs with doors found fully jammed	BOBYNs where door opening assembly is very tight and not working smoothly	BOBYNs in which gap observed even in closed position doors		
1	2	3	4	5	6	7	8

Note: The BOBYN(s) certified under columns 2 & 3 only should be loaded. Other BOBYNs under columns 4, 5 & 6 shall not be loaded, and, if possible, should be detached for attention.

(B) Loading of Hoppers:

1. It should be ensured that loading is done only in the hoppers having proper working doors.
2. All the hoppers should be evenly and uniformly loaded, with equal quantity in all chambers.

(C) Unloading of Hoppers:

1. The ballast train should be accompanied by a nominated SSE/JE/P-Way.
2. The unloading should be done only during sun rise to sun set. If in case the ballast train working is required during night, following precautions/arrangements to be ensured.

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- (a) Personal permission of DRM is obtained in advance.
- (b) Proper lighting arrangement should be done at the work spot.
- (c) Accommodation for the labour shall be ensured on the material train.
- (d) It should be ensured that no labour is travelling in the material wagons.
- (e) In-charge SSE of the section shall accompany the material train.

3. In case of ballast train is working with contractor's men, the contractor supervisor should be available, with authorized photo identify card. Contractor's Supervisor and labour should have been trained in unloading of ballast. In-charge SSE shall counsel the contractor's supervisor and labour regarding working of material train and same shall be recorded.

4. The nominated SSE/JE/P-Way should have the details of exact location at which the ballast has to be unloaded.

5. Sufficient men (minimum 12 to 15) shall be available for unloading of ballast.

6. Preferably only one hopper should be unloaded at a time.

7. The SSE/JE/P-Way should properly instruct the labour about procedure as when to open and close the hopper doors (so as to avoid uneven and excess unloading of the ballast).

8. Ballast train should not be stopped while unloading and, if it is stopped due to any reason, the same should not be moved without ensuring that there is no infringement for the movement.

9. Once unloading is started from a hopper, entire ballast should be unloaded and nothing should be left to cause uneven loading. In case, due to some reason, it is not possible to unload hopper completely than before movement from site available ballast in that hopper should be evenly distributed in all the compartments of that hopper. For doing so, carry shovel, wire claw etc should be available at site.

10. In case unloading is being done in double line section, it should be ensured that no person working with ballast train goes to the adjacent line. A lookout man, with whistle, should be available to warn about movement of any train on adjacent line.

11. Unloading of hopper should not be done on platform lines having medium/high level platform.

(D) After unloading & before clearing the Block:
It must be ensured that the unloaded ballast is not left in such a way that it causes infringement/obstruction for the running of trains.

3/Jan
09-08-2019
Anil Kumar Malik
PCE/WCR O/L

Annexure 2Check List for Working of Ballast DMT (BOBYN Trains)

<u>Sl. No.</u>	<u>Instructions</u>	<u>Action</u>
1	The Ballast Train is accompanied by a qualified Engineering Official-in-charge (hereinafter called OIC), with valid competency certificate	Competency Certificate to be issued by Sectional DEN/Sr. DEN on a yearly basis after examining w.r.t knowledge of extant instructions & precautions to be followed. The summary details must be maintained in the Ballast Unloading Register by SSE/P-Way Incharge.
2	In case of ballast train working with contractors' men, contractor's supervisor should be available with the BT with authorized photo identity card. Contractor's Supervisor and Labour should be trained to work the ballast train.	Assurance to be obtained by the OIC in an Assurance Register from the contractor supervisor that he is well conversant with the rules & regulations pertaining to the working of BT.
3	The Engineering Official-in-charge must have the details of exact location at which the ballast has to be unloaded, duly approved by SSE/P. Way (Incharge) or ADEN.	The Unloading Location and Approval must be entered by the OIC in the Ballast Unloading Register.
4	The Hopper doors are in proper working order and has a Valid BPC. This must be ensured before loading of ballast in the Hoppers.	To be ensured by SSE/P-Way Incharge. Details must be entered in the Ballast Unloading Register as per Para (A) of PCE Instructions in Annexure 1.
5	The Wagons are loaded up to the correct level as per the marking given on the Hopper Wagons.	Marking as per Para 6.2.3 of PCE Circular No. 7 to be ensured before loading of Ballast by SSE/P-way Incharge.
6	Minimum 12 to 15 labour are available in the BT.	No. of labour available (departmental or contractual) to be entered in the Ballast Unloading Register by OIC.
7	After unloading of BT completely, the empty BT should be jointly checked by OIC & Guard of DMT and OIC.	OIC must ensure that the <u>Complete Unloading Certificate</u> in the Ballast Unloading Register is made that: "The Ballast DMT of _____ No. of Wagons has been unloaded completely and no ballast is left in any BOBYN as checked jointly by _____ (OIC) & _____ (Guard) at _____ Station on _____ (Date & Time)" If there is any Wagon left partially loaded, the same must be emptied then & there manually duly observing all precautions.