भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
रेलवे बोर्ड Railway Board

No. 2011/CEDO/SD/IRSOD/O/ACS-21 **New Delhi, Dated 27.09.2017**

Addressed to :
(As per list mentioned below)

Sub : Addendum & Corrigendum Slip (ACS) No. 21 to the Indian Railways Schedule of Dimensions (BG) Revised, 2004.

Board have approved introduction of chapter VB titled '25 kV A.C. Electric Traction with High Rise OHE' in Schedule I of Indian Railway's Schedule of Dimensions 1676mm Gauge (B.G.) Revised, 2004.

Kindly find enclosed herewith the Addendum & Corrigendum Slip (ACS) No. 21 in this regard.

Enclosure : **ACS No. 21** (03 pages).

अनिल कुमार 27/9/17

(अनिल कुमार)
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Addendum & Corrigendum Slip (ACS) No. 21
To
Indian Railways Schedule Of Dimensions (B.G.) Revised, 2004

Chapter VB - 25 kV A.C.Electric Traction with High Rise OHE

Note: Provisions under this chapter are applicable only for electrification of routes where double stack container having maximum height of 6809 mm is plying.

1. Minimum Height from rail level to the underside of contact wire in open: 7520mm

Note: On curves, the height shall be measured from the higher or super elevated rail.

2. Minimum Height of Overhead structure above rail level for a distance of 1600 mm on either side of the centre of track shall be as under:

(A)	Light Overhead Structures, such as Foot Over Bridges:	8430 mm
(B)	Heavy Overhead Structures, such as Road Over Bridges and Flyovers:	8050 mm
(C)	Heavy Overhead Structures, such as Road Over Bridges and Flyovers, if any turnout or crossover is located under that heavy overhead structure or within 40 meters from its nearest face:	8430 mm

Note:

(i) Necessary provision shall be made in overhead structure and overhead equipment to permit an extra allowance for raising of track in future to cater for modern track structure in the form of increased ballast cushion of 350 mm, larger sleeper depth of 230 mm and heavier rail sections of 200 mm including 10 mm thick rubber pad by using longer traction overhead equipment masts, if necessary.

(ii) In case of restricted height of existing overhead structures, minimum height of overhead structure for a distance of 1600mm on either side of the centre of track for provision of high rise OHE as per note (iii) below, to permit operation of double stack container having maximum height as 6809 mm shall be as under:

(a)	Light Overhead Structures, such as Foot Over Bridges:	7568 mm
(b)	Heavy Overhead Structures, such as Road Over Bridges and Flyovers:	7468 mm
(c)	Heavy Overhead Structures, such as Road Over Bridges and Flyovers, if any turnout or crossover is located under that heavy overhead structure or within 40 m from its nearest face: For these minimum restricted heights, catenary wire shall be terminated outside overhead structure (Road Over Bridges & Flyovers / Foot Over Bridges).	7568 mm

(iii) In case of restricted height of existing overhead structures, bridges and tunnels the minimum height of underside of the contact wire from rail level can be reduced to

27/9/12

7166 mm. In such cases, a special study shall be made, before 25 kV AC traction is introduced as explained below:

(a)	Height of the rolling stock:	6809 mm
(b)	Short duration electrical clearance:	200 mm
(c)	Additional electrical clearance for oscillation of the contact wire (For OHE span length of 49.5m or below):	50 mm
(d)	Allowance for track upgradation/maintenance:	50 mm
(e)	Rise in rolling stock height under dynamic conditions:	57 mm
	Minimum height of contact wire:	7166 mm

(iv) Extra vertical clearance shall be provided on curves as under:

$$\text{Extra vertical clearance (mm)} = \frac{\text{Width of MMD (mm) x Super elevation (mm)}}{\text{Dynamic gauge (mm)}}$$

This extra vertical clearance on curve would be with respect to inner rail of curve.

3. Clearance for Power Line Crossings Including Telephone Line Crossings of Railway Tracks:

SL	Over Head Crossing Voltage	Minimum Clearances From Rail Level		Minimum Clearance Between Highest Traction Conductor And Lowest Transmission Line Crossing Conductor
		Existing Power Line Crossing For Non - Electrified Territory	New Power Line Crossing Or Crossing Planned For Alteration	
(1)	*(2)*	*(3)*	*(4)*	*(5)*
(a)	Upto and including 11 kV	Normally By Underground Cable		
(b)	Above 11 kV &upto 33 kV	10860 mm	16660 mm	2440 mm
(c)	Above 33 kV &upto 66 kV	11160 mm	16960 mm	2440 mm
(d)	Above 66 kV &upto 132 kV	11760 mm	17560 mm	3050 mm
(e)	Above 132 kV &upto 220 kV	12660 mm	18460 mm	4580 mm
(f)	Above 220 kV &upto 400 kV	14460 mm	20260 mm	5490 mm
(g)	Above 400 kV &upto 500 kV	15360 mm	21160 mm	7940 mm
(h)	Above 500 kV &upto 800 kV	18060 mm	23860 mm	7940 mm

Note :

(i) All height/clearances are in mm and under maximum sag conditions.

(ii) If the crossing is provided with a guarding, a minimum clearance of 2000mm shall be maintained between bottom of the guard wire and highest traction conductor.

(iii) Power line crossing in yards & stations area shall be avoided.

(iv) For any electrification work of existing line; doubling/gauge conversion along with electrification, existing crossings can continue, if dimensions are as per Column (5) above, even if dimensions of Col (3) are not satisfied i.e. for electrification works Col (3) is not applicable.

4. Maximum width of Pantograph Collector: 2030 mm

Note: A tolerance of plus 10mm on maximum width specified is permissible to accommodate variation in manufacture and mounting with respect to centre line of vehicle.