



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
पावर कम्युनिकेशन डवलपमेंट प्रभाग
Power Communication Development Division

सं.: CEA/PCD/PTCC/MP-428 / 2548-53

Date: 05/12/2018

DET (PTCC), Inspection Circle,
Bharat Sanchar Nigam Limited,
3rd Floor, D-Wing, BSNL Admin Bldg.
Juhu Tara Road, Santacruz (West),
Mumbai-400054

Subject: PTCC Route Approval for 220kV DCDS line from 400kV Khandwa(PGCIL) to proposed 220kV S/S Chhanera.

Ref

(i) BSNL Ltr.No.IC/MBI/PTCC/MP-529	dt. 15/10/2018
(ii) WCR Ltr No.WCR/N-HQ/120/PTCC/CORRP/T-50//Pt-III Case no.217	dt.21/03/18
(iii) CR Ltr.No. N.153/PTCC/220kV/MP-20	dt. 26/02/2018
(iv) Western Railway Ltr.No. SG.85/158./28/10(L-178)	dt.26/09/2018
(v) South Central Railway Ltr No.SG.85/4/3/PTCC/SCRMP201802 RTD	dt.13/03/2018
(vi) Defense letter no. B/46937/Sigs 7(b)/ 986	dt:05/04/2018


Sir,

The low frequency induction on telecom cables of Railway with respect to details furnished vide above reference (i), (ii),(iii) , (iv) and (v) respectively has been computed. The average Soil Resistivity (SR) value has been taken as 40,000 Ohm Cm, as intimated by the Power Authority, Madhya Pradesh Power Transmission Co.Ltd.(MPPTCL). The voltages likely to be induced on paralleling telecom circuits of BSNL and Railway under Single Line to Ground fault condition have been computed and are enclosed at Annex-I & II to V respectively. The screening factors, as applicable, have been considered. Vide Ref. (vi) above, the Defense authority has accorded No Objection Certificate (NOC) (copy enclosed at Annex-VI).

Based on MPPTCL request dated 29/10/2018 CEA has recommended Provisional PTCC approval vide letter No. CEA/PCD/PTCC/MP-428/2343-45 dated 30/10/2018.

Taking above into consideration, kindly take necessary action regarding issue of final PTCC route approval.

Encl.: As above


(Naresh Bhandari)
Chief Engineer

P.T.O

Copy to:

1. Dy. CSTE, West Central Railway, Office of GM (S&T) 1st Floor, Annex II Building, Platform No.6, Jabalpur - 482001 (Annexure-II only)
2. Dy. CSTE, Central Railway, Headquarters Office (S&T Branch) 3rd Floor, Annex Building, CST Mumbai-400001 (Annexure-III only)
3. Dy. CSTE, Western Railway, S&T Dept, 5th Floor, Station Building, Churchgate Mumbai-400020 (Annexure-IV only)
4. SSTE/TELE/HQ., South Central Railway, Head Quarter Office, Signal & telecom Branch, Rail Nilayam, Secunderabad-5000 25. (Annexure-V only)
5. Chief Engineer(Procurement), MPPTCL, Block No.3 Shakti Bhawan, Rampur, Jabalpur, (M.P.)-482008

ANNEXURE - I

Case No.: MP 428

**Name of the Power line: 220kV DCDS Line from 400kV
(PGCIL)S/S to proposed 220kV S/S Chhanera**

Map Scale : 1cm=500mts

Total Length : 39.17 Km.

S.R. Value : 40,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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	BSNL LTR No. IC/MBI/PTCC/MP-529 dated 15/10/2018				
	KHANDWA SSA				
	SDOT New Harsud				
A	Amalpura T/exchange				
	Exch. To Location(1) -50 pair	}			
	Exch. To Location(2) -50 pair				
	Location (2) To Location(3) -20 pair				
	Location (3) To Location(4) -05 pair				
					IV less than 430V
B.	Khedi T/Exchange				
	Exch. To Location(1) -100 pair	}			
	Location (1) To Location(2) -20 pair				
	Location (2) To Location(3) -05 pair				
	Location (2) To Location(4) -10 pair				
	Location (2) To Location(5) -10 pair				
					IV less than 430V
C.	Ashapur T/exchange				
	Exch. To Location(1) -50 pair	}			
	Exch. To Location(2) -100 pair				
	Location (2) To Location(3) -50 pair				
	Location (3) To Location(4) -10 pair				
	Location (4) To Location(5) -05 pair				
					IV less than 430V
D.	Chhanera(New Harsud) T/Exchange				
	Exch. To Location(1) -400 pair	}			
	Location (1) To Location(2) -200 pair				
	Location (2) To Location(3) -100 pair				
	Location (3) To Location(4) -50 pair				
	Location (4) To Location(5) -20 pair				
	Location (5) To Location(6) -10 pair				
	Location (6) To Location(7) -05 pair				
					IV less than 430V



मुख्य अभियन्ता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
सेवा भवन, आर.के. पुरम,
Sector 8, Okhla, New Delhi-66

ANNEXURE - II

Case No.: MP 428

Name of the Power line: 220kV DCDS Line from 400kV (PGCIL)S/S to proposed 220kV S/S Chhanera

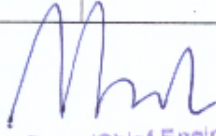
Map Scale : 1cm=500mts

Total Length : 39.17 Km.

S.R. Value : 40,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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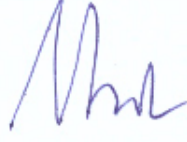
WEST CENTRAL RAILWAY WCR/N-HQ/120/PTCC/CORRP/T-50/Pt-III Case no.217 dt.21/03/18					
<u>AFFECTED BLOCK & TELECOM CIRCUITS DETAIL</u>					
1	Khandwa-Mathela	1	0.0108	10000	11
2	Mathela-Talvadiya	7	0.0227	9700	22
3	Talvadiya – Sargaon Banjar	Outside IV consideration zone			0
4	Sargaon Banjar – Charkheda Khurd	8	0.0098	5385	52
5	Charkheda Khurd –Chhanera	6	.0313	7950	249
6	Chhanera-Barud	2.5	.0023	10000	23
7	Barud-Dagarkhedi	OUT OF PARALLELISM			0


 मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.के. पुरम,
 Sawa Bawan, R.K. Puram,
 नई दिल्ली-65/New Delhi-66

ANNEXURE - III

Case No.: MP 428 Name of the Power line: 220kV DCDS Line from 400kV (PGCIL)S/S to proposed 220kV S/S Chhanera		Map Scale : 1cm=500mts Total Length : 39.17 Km. S.R. Value : 40,000 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

CENTRAL RAILWAY Ref. No. N153/PTCC/220kV/MP-20 Date : 26.02.2018					
<u>AFFECTED BLOCK & TELECOM CIRCUITS DETAIL</u>					
Khandwa-Bargaon Gujjar		0.5	0.00028	10000	3


 मुख्य अभियंता/Chief Engineer
 केंद्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.पी. पुरम,
 Suva Bhawan, R.P. Pura,
 New Delhi-66

ANNEXURE - IV

Case No.: MP 428

Name of the Power line: 220kV DCDS Line from 400kV (PGCIL)S/S to proposed 220kV S/S Chhanera

Map Scale : 1cm=500mts

Total Length : 39.17 Km.

S.R. Value : 40,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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WESTERN RAILWAY

Ref. No. SG.85/158./28/10(L-178) Date : 26.09.2018

AFFECTED BLOCK & TELECOM CIRCUITS DETAIL

Khandwa-Ajanti	OUT OF PARALLELISM	0
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मुख्य अभियन्ता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
सेवा भवन, आर.जे. पुरम,
State Electrical Grid, Farim,
नं. 1, कान्हाबाई नदी-66

ANNEXURE - V

Case No.: MP 428 Name of the Power line: 220kV DCDS Line from 400kV (PGCIL)S/S to proposed 220kV S/S Chhanera		Map Scale : 1cm=500mts Total Length : 39.17 Km. S.R. Value : 40,000 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SOUTH CENTRAL RAILWAY					
Ref. No. SG.85/4/3/PTCC/SCRMP201802 RTD Date : 13.03.2018					
AFFECTED BLOCK & TELECOM CIRCUITS DETAIL					
	Khandwa-Mordar	0.5	0.000197	10000	2



मुख्य अभियन्ता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
सेवा भवन, आर.के. पुरम,
South Block, R.K. Puram,
New Delhi-66

ANNEX-VI

MP-498

Tele : 23019746

Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011

B/46937/Sigs 7(b)/986 /

05 Apr 2018

Chief Engineer (Procurement)
Madhya Pradesh Power Transmission Co. Ltd.
Block No 3, Shakti Bhawan,
Rampur, Jabalpur (MP) - 452005

**PTCC ROUTE APPROVAL FOR CONSTRUCTION OF 220KV DCDS LINE
FROM 400KV S/S KHANDWA(PGCIL) TO PROPOSED 220 KV S/S
CHHANERA.**

1. Reference your letter No.04-01/PTCC/2431/TR-I/1282 dt 05 Feb 2018.
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(AV Undekar)
Lt Col
GSO 1 (Comn)
for SO-in-C

Copy to :-

✓ The Director (PTCC), CEA
NREB Complex,
18-A, Shaheed Jeet Singh Marg,
Katwaria, Sarai, New Delhi - 110016

- For information.