



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

No. CEA/PCD/ PTCC/CHH-81/731-733

Date: 19.06.2019

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

Subject: Induced Voltage calculation in respect of PTCC proposal 765 kV Tamnar – Dharamjaigarh pool section B Transmission Line

Ref: (i) BSNL letter no. IC/MBI/PTCC/CG-126 dated 22.01.2019
(ii) South East Central Railway letter no. SECR/S&T/PTCC/CG/1682 dated 21.02.2019
(iii) Defense letter no. B/46937/Sigs 7(b)/1394 dated 11.02.2019

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) respectively has been examined. The Soil Resistivity value has been taken as 40,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I&II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref. (iii) for the line (a copy enclosed at Annex-III).

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

Encl.: As above

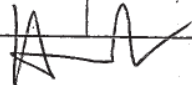
Yours faithfully,

(Signature)
(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) Office of CSTE, South East Central Railway, 2nd Floor, SECR Zonal Hq Building, Bilaspur- 495004 (Only Annex II)
- 2) Line Manager, Goa-Tamnar Transmission Project Limited(GTTPL), HIG-5, First Floor, Pandit Ravishankar Shukla Nagar, Korba - 495677

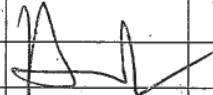
CEA Office Case No.: CHH-81		Map Scale: 1:50,000			
DET (PTCC) Office Case No.: IC/MBI/PTCC/CG-126		Route Length: 69.517 KM			
Railway Office Case No.:		Average SR Value: 40,000 Ω -km			
Name of Power Line		765 KV D/C Dharamjaigarh - Tamnar Transmission line [GTTPL].			
S. No.	Name of Telecom Line/ Cable	Length of Parallelis m in Kms.	Mutual Coupling in Ohms	Faults Current in Amps	Induce Voltage in Volts
	BILASPUR SSA				
	SDOT Korba				
(1)	Bhaisma T/ Exchange				
	Exchange to Location (A) - 100 Pair				← IV less than 430V →
(2)	Patadi (Lanco) T/ Exchange				
	Exchange to Location (A) - 100 Pair				} ← IV less than 430V →
	Exchange to Location (A) - 50 Pair				
(3)	Urga T/ Exchange				
	Exchange to Location (A) - 100 Pair				← out of 115 m →
(4)	Barpali T/ Exchange				
	Exchange to Location (A) - 200 Pair				← IV less than 430V →
	RAIGARH SSA				
	SDOT Gharghoda				
(1)	Gharghoda T/ Exchange				
	Exchange to Location (A) - 400 Pair				} ← IV less than 430V →
	Exchange to Location (B) - 200 Pair				
	Exchange to Location (C) - 100 Pair				
	Location (C) to Location (D) - 50 Pair				
(2)	Punjipathra T/ Exchange				
	Exchange to Location (A) - 100 Pair				} ← out of 115 m →
	Exchange to Location (B) - 50 Pair				
	SDOT Kharsia				
(3)	Kudekela T/ Exchange				
	Exchange to Location (A) - 50 Pair				} ← IV less than 430V →
	Exchange to Location (B) - 20 Pair				


 नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE - II

Case No.: CHH- 81 Name of the Power line: 765 kV Tamnar – Dharamjaigarh pool section B Transmission Line		Map Scale : 1cm=500mts Total Length : 69.517 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 EAST CENTRAL RAILWAY Ref. No:SECR / S&T /PTCC / CG / 1682		DATED: 21-02-2019			
<u>Affected Blocks & Telcom Circuits Details</u>					
1	Kothari Road - Madwarani	-----Out of consideration Zone-----			0
2	Madwarani - Saragbundia	-----Out of //sm-----			0
3	Saragbundia - Urga	2.2	0.0020	18500	37
4	Urga - Korba	-----Out of //sm-----			0
5	Korba - Kusmunda				0
6	Kusmunda – Gevra Road	-----Out of consideration Zone-----			0


नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियंता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

Tele : 23019746

CHH-81

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

B/46937/Sigs 7(b)/1394/

11 Feb 2019

Line Manager
Goa-Tamnar Transmission Project Limited
HIG-5, First Floor,
Pandit Ravishankar Shukla Nagar,
Korba-495677

**SUBMISSION OF PTCC ROUTE APPROVAL WITH REFERENCE TO INSTALLATION OF
765KV D/C TAMNAR-DHARAMJAIGARH POOL SECTION B TRANSMISSION LINE**

1. Ref your letter No GTTPL/TDTL765/PTCC/01C dt 28 Nov 2018 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are forwarded herewith for your further action.



(A Rawat)
Maj
GSO 1 (Comn)
for SO-in-C

Enclosures : As above

Copy to :-

✓ The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110016

for information.