



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डवलपमेंट प्रभाग

Power Communication Development Division

No. CEA/PCD/ PTCC/CHH-74/526-27

Date: 29.04.2019

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 of 220 kV DCDS line from 220 kV S/S Mungeli to proposed 220/132 kV S/S Gendpur, Kawardha Distt.

Ref: (i) BSNL letter no. IC/MBI/PTCC/CG-117 dated 23.01.2019
(ii) South East Central Railway letter no. SERC/S&T/PTCC/CG/428 dated 12.06.2018
(iii) Defense letter no. B/46937/Sigs 7(b)/910/ dated 19.02.2018

Sir,

The low frequency induction on BSNL as per details furnished vide above cited references (i) 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 under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. South East Central Railway vide above ref (ii) has accorded No Objection. Defense has accorded NOC vide above Ref.(iii) for the line (a copy enclosed at Annex-II).

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

Encl.: As above

Yours faithfully,


(Naresh Bhandari)
Chief Engineer

Copy to:

Executive Director(C&P), CSPTCL, State Load Dispatch Building, Dangania, Raipur – 492013.

M/c

ANNEX-1

CEA Office Case No.: CHH-74		Map Scale: 1:50,000			
DET (PTCC) Office Case No.: IC/MBI/PTCC/CG-117		Route Length: 38.343 KM			
Railway Office Case No.:		Average SR Value: 2,000 Ω -cm			
Name of Power Line		220KV DCDS line from 220/132KV S/s Mungeli to 220/132KV S/s Gendpur (Kawardha).			
S. No.	Name of Telecom Line/ Cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Faults Current in Amps	Induce Voltage in Volts
	BILASPUR SSA				
	SDOT Mungeli				
	Mungeli T/ Exchange				
	Primary Cable -Mungeli (1) - 800 Pair	}			outside IV consideration zone
	Primary Cable -Mungeli (2) - 400 Pair				
	Distribution Cable -Mungeli (3) - 100 Pair				
	Distribution Cable -Mungeli (4) - 50 Pair				
	Distribution Cable -Mungeli (5) - 20 Pair				
	Distribution Cable -Mungeli (6) - 10 Pair				
	Distribution Cable -Mungeli (7) - 5 Pair				
	DURG SSA				
	SDOT Bemetara				
(I)	Nawagarh T/ Exchange				
	Nawagarh Exchange to Pillar (A-B) - (200+100 Pair	}			← IV less than 430V →
	Nawagarh Pillar to College (B-D) - 10 Pair				
	Nawagarh Pillar to Market (B-C) - 20 Pair				
	Nawagarh Exchange to Janpad (A-E) - 10 Pair				
(II)	Dodhi T/ Exchange				
	Dodhi Exchange to Police Station (G-F) - 10 Pair	}			← IV less than 430V →
(V)	Khamariya T/ Exchange				
	Khamariya Exchange to Janpad Chouk (A-B) - 100 Pair	}			← IV less than 430V →
	SDOT Kawardha				
(III)	Pipariya T/ Exchange				
	Pipariya Exchange to Pillar (A-B) - 50 Pair	}			← outside IV consideration zone →

(IV)	Kawardha T/ Exchange				
	Kawardha Exchange to Signal Chouk (A-B) - 800 Pair	} ← outside IV consideration zone →			
	Kawardha Exchange to Rajnadgaon Road (A-E) - 50 Pair				
	Signal Chouk to Bilaspur Road (B-C) - 200 Pair				
	Signal Chouk to Raipur Road (B-D) - 200 Pair				
	Kawardha Exchange to Civil Line (A-F) - 100 Pair				
	Kawardha Exchange to Collectorate Colony (A-G) - 100 Pair				
	Bilaspur Road to Raipur Road (C-D) - 200 Pair				

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

CHH - 74

ANNEX-II

Tele : 23019746

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

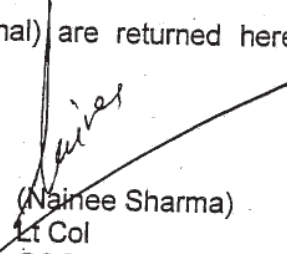
B/46937/Sigs 7(b)/910/

19 Feb 2018

Executive Director (C&P)
Chhattisgarh State Power Transmission Co. Ltd
State Load - Dispatch Building
Dangania, Raipur - 192013
Ph - 0771-2574831

**PROPOSAL FOR OBTAINING PTCC APPROVAL FOR
CONSTRUCTION OF 220KV DCDS LINE FROM 220/132KV S/S
MUNGELI TO PROPOSED 220/132KV S/S KV S/S GENDPUR
(KAWARDHA)**

1. Reference your letter No 02-12/PTCC/1791/ dt 04 Jan 2018.
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 returned herewith for your further necessary action.


(Nainee Sharma)
Lt Col
GSO 1 (Comn)
for SO-in-C

Copy to :-

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

- For information.