



सत्यमेव जयते

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/KNK-890 1159-61

Date:11.02.2019

DET (PTCC),
QA & Inspection (T&D) Circle, BSNL
1 Floor, Raj Bhavan Exchange,
No. 26, Sardar Patel Road,
Guindy, Chennai – 600032

Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV DC line from 400/220 kV Guddadahalli Sub-station to proposed 220/110 kV Koppal Receiving station

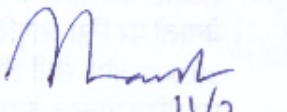
Reference: (i) BSNL letter no. SR-PTCC/SKT-2016/3 dated 10.08.2018
(ii) South Western Railway letter no. SG/SWR/PTCC/F-2675/1698 dated 02.04.2018
(iii) Defense letter no. B/46937/Sigs 7(b)/944 dated 06.03.2018

Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Western Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 30,000 Ohm-cm, as intimated by the Power Authority (KPTCL). The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Western Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – III). Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above

m/c

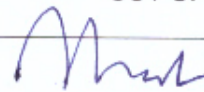

11/2
(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) PCSTE, South Western Railway, Office of the Principal Chief Signal & Telecom Engineer, 1st Floor, West Block, Rail Soudha, Gadag Road, Hubli – 580020 (Annex – II only)
- 2) Chief Engineer Electricity, KPTCL, State Load Despatch Centre, No. 28, R.C. Cross Road, Bengaluru - 560009

ANNEXURE - I

Case No.: KNK-890					
Name of the Power line: 220 kV DC line from 400/220 kV Guddadahalli Sub-station to proposed 220/110 kV Koppal Receiving station		Map Scale : 1cm=500mts Total Length : 11.323 km Average S.R. : 30,000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL letter no. – SR-PTCC/SKT-2016/3 dated 10.08.2018					
I.A	Ginigera Exge UG cables				
	Exge to Kirloskar Factory A-A1				IV LESS THAN 430 V
	Exge to Guladahalli A-A2	3.2	0.0424	10000	424
	Exge to Cinema Talkies A-A3				IV LESS THAN 430 V
	Exge to Allanagar A-A4				
	Exge to Renuka Poultry Farm A-A5				
	Exge to Basapur A-A6				
II.H	Hirebagnal Exge UG cables				
1	Exge to Kasanakandi Road H-H1	2.15	0.0631	7000	442
2	Exge to Xindia Steels Ltd Road H-H2				IV LESS THAN 430 V
3	Exge to Allanagar Village H-H3				
4	Exge to Thakur Industries H-H4				
5	Exge to Bazar Area H-H5				
III.K	Kunikera Exge UG cables				
1	Exge to Kunikera Thanda K-K1				OUT OF PARALLELISM
2	Exge to Kunikera village K-K2				
3	Exge to Kunikera village K-K3				IV LESS THAN 430 V
4	Exge to Druvadesh Factory K-K4				
IV.L	Halahalli Exge UG cables				
1	Exge to Kaltavargera Village L-L1				OUT OF PARALLELISM
2	Exge to Ginigera Road L-L2				
3	Exge to Halahalli Village L-L3				
V.D	Budugumpa Exge UG cables				
1	Exge to Budugumpa village D-D1				OUT OF PARALLELISM
2	Exge to Gangavathi Road D-D2				
3	Exge to Koppal Road D-D3				
VI.B	Hitnal Exge UG cables				
1	Exge to Huligi Temple B-B1				IV LESS THAN 430 V
2	Exge to Huligi Railway Station B-B2				
3	Exge to Kampasagar B-B3				
4	Exge to Hosalli B-B4				
VII. E	Agarkera Exge UG cables				
1	Exge to Shivapur E-E1				OUT OF PARALLELISM
2	Exge to Shivapur E-E2				
3	Exge to Agarkera Village E-E3				




नरेश बंधारी/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.: KNK-890					
Name of the Power line: 220 kV DC line from 400/220 kV Guddadahalli Sub-station to proposed 220/110 kV Koppal Receiving station		Map Scale : 1cm=500mts Total Length : 11.323 km Average S.R. : 30,000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

South Western Railway letter no. SG/SWR/PTCC/F-2675/1698 dated 02.04.2018					
1	Koppal (KBL) – Ginigera (GIN)	4.0	0.0024	10000	24
2	Ginigera (GIN) – Munirabad (MRB)	1.8	0.0037	7000	26
3	Munirabad (MRB) – Hospete (HPT)	OUT OF PARALLELISM			0


 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-68

Annexure III

Tele : 23019746

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

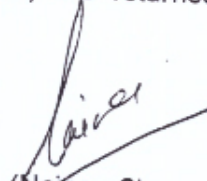
B/46937/Sigs 7(b)/944/

06 Mar 2018

Chief Engineer Electricity,
State Load Despatch Centre
28, R.C, Cross Road,
Banagalore - 5600009

**PROPOSED 220 KV DC LINE USING DRAKE ACSR CONDUCTOR
FROM 400/220KV GUDDADAHALLI SS TO PROPOSED 220/110KV
KOPPAL RECEIVING STATION FOR DISTANCE OF 11.323Kms IN
KOPPAL DISTRICT**

1. Reference your letter No CEE/SLDC/PTCC/F-2675/-21622 -29 dated 16 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.