



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/KNK-869/2524-2526

Date:05.12.2018

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

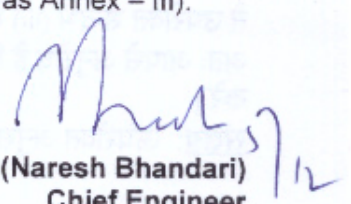
Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV D/C line from 400/220 kV Sub-station Kalaburgi near Firozabad village to the proposed 220/110/11 kV Receiving Station Ganagapur (Nimbarga) in Aland Taluk, Kalaburgi District

Reference: (i) BSNL letter no. SR-PTCC/SKT-1483/6 dated 27.07.2018
(ii) Central Railway letter no. N.153/PTCC/220kV/KAR-68 dated 24.01.2017
(iii) Defense letter no. B/46937/Sigs 7(b)/465 dated 25.01.2017

Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom circuits of Central Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 25,000 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 Central 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


(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) GM (S&T), Central Railway, Headquarters Office, S&T Branch, 3rd Floor, Annex Bldg, Mumbai CST – 400001 (Annex – II only)
- 2) Chief Engineer Electricity, KPTCL, State Load Despatch Centre, No. 28, R.C. Cross Road, Bengaluru - 560009

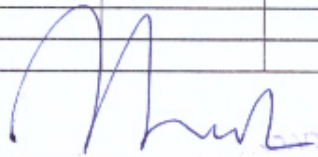
एन आर पी सी परिसर, कटवारिया सराय, नई दिल्ली-110016 टेलीफैक्स: 011-26565214 ईमेल: nbnareshbhandari@gmail.com

NRPC Building, Katwaria Sarai, New Delhi-110016 Telefax: 011-26565214 Email: nbnareshbhandari@gmail.com Website: www.cea.nic.in

ANNEXURE - I

Case No.: KNK-869					
Name of the Power line: 220 kV D/C line from 400/220 kV Sub-station Kalaburgi near Firozabad village to the proposed 220/110/11 kV Receiving Station Ganagapur (Nimbarga) in Aland Taluk, Kalaburgi District		Map Scale : 1cm=500mts Total Length : 36.196 km Average S.R. : 25,000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

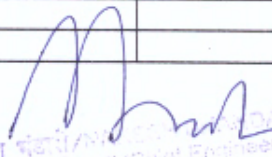
BSNL letter no. - SR-PTCC/SKT-1483/6 dated 27.07.2018					
I A	Ferozabad AN RAX Exge UG cables				
1	Exge to Market Ferozabad A-A1			IV LESS THAN 430 V	
II B	Nimbarga RSU Exge UG cables				
1	Exge to Market Nimbarga B-B1			OUT OF PARALLELISM	
III C	Ganagapur -T RSU Exge UG cables				
1	Exge to Market Ganapur-T C-C1			IV LESS THAN 430 V	
IV D	Gaanagapur Rly Stn Exge UG cables				
1	Exge to MktGanagapur R.Stn D-D1			IV LESS THAN 430 V	


 नवीन सिंग/...
 मुख्य अभियंता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-86

ANNEXURE - II

Case No.: KNK-869					
Name of the Power line: 220 kV D/C line from 400/220 kV Sub-station Kalaburgi near Firozabad village to the proposed 220/110/11 kV Receiving Station Ganagapur (Nimburga) in Aland Taluk, Kalaburgi District		Map Scale : 1cm=500mts Total Length : 36.196 km Average S.R. : 25,000 Ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

CENTRAL RAILWAY letter no. - N.153/PTCC/220kV/KAR-68 dated 24.01.2017					
1	Gudgaon - Ganagapur	OUT OF PARALLELISM			0
2	Ganagapur - Hunshadgil	2.5	0.0069	10000	69
3	Hunshadgil - Savalgi	6.1	0.0027	8300	23
4	Savalgi - Bablad	OUTSIDE IV CALCULATION CONSIDERATION ZONE			0


 नवीन शंकर/Navin Shankar
 मुख्य अभियंता/Circuit Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत मंत्रालय/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-66

Annex-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)/465/

25 Jan 2017

Chief Engineer (Electricity)
State Load Despatch Centre,
28, R.C. Cross Road
Bangalore - 560009

PROPOSED 220KV DC LINE FROM THE PROPOSED 400/220KV SS AT FIROZABAD VILLAGE TO THE PROPOSED 220/110/11KV SS AT GANAGAPUR (NIMBURGA) IN ALAND TALUK, KALABURGI DISTRICT

1. Reference your letter No.CEE/SLDC/PTCC/F-2473/-12139-49 dt 28 Dec 2016.
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 necessary action.

Bikram

(Bikram Kunwar)
Lt Col
GSO 1 (Comn)
for SO-in-C

Enclosures : (As above)

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

for information.