



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डवलप्मेंट प्रभाग

Power Communication Development Division

No./CEA/PCD/PTCC/TNG-71/725-727

Date : 19.06.2019

The Divisional Engineer Telecom (PTCC),
QA & Inspection (T&D) circle, BSNL,
1st 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 proposed 220/11 kV SS Rampur to proposed 220/11 kV SS Rajeshwarraopet

Reference: i) BSNL letter no. SR-PTCC/STS-2144/07 dated 27.12.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201854 RTD dated 15.11.2018

Sir,
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of South Central Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 50,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered.
Telecommunication details from Defense are pending and the power authority has shown urgency for charging the line. In view of this, you are requested to issue provisional PTCC route approval.

Encl.: As above


(Naresh Bhandari)
Chief Engineer

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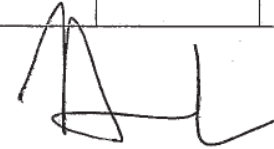
- 1) GM (S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad, Telangana – 500025 (Annex – II only)
- 2) Executive Director, Lift Irrigation Schemes, TSTRANSCO, Vidyut Soudha, Hyderabad - 500082

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ANNEXURE - I

Case No.: TNG-71 Name of the Power line: 220 kV DC line from proposed 220/11 kV SS Rampur to proposed 220/11 kV SS Rajeshwarraopet		Map Scale : 1cm=500mts Total Length : 35.20 Km. Soil Resistivity : 50000 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/STS-2144/07 dated 27.12.2018					
Kathalapur Exchange					
1	Exchange to Kathalapur Pillar	IV LESS THAN 430 V			
2	Exchange to Kathalapur Local				
3	Bommena Cross Road				
4	Exchange to Sirikonda				
Mannegudem Exchange					
1	Exchange to Local	IV LESS THAN 430 V			
2	Exchange to Local				

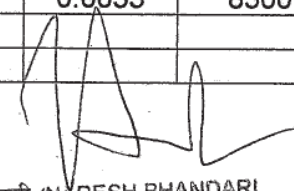


नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE - II

Case No.: TNG-71		Map Scale : 1cm=500mts			
Name of the Power line: 220 kV DC line from proposed 220/11 kV SS Rampur to proposed 220/11 kV SS Rajeshwarraopet		Total Length : 35.20 Km.			
		Soil Resistivity : 50000 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 Central Railway letter no. SG.85/4/3/PTCC/SCRTS201854 RTD dated 15.11.2018					
1	Gangadhara (GDRA) – Lingampet Jagityal (LPJL)	1.9	0.0029	9000	26
2	Lingampet Jagityal (LPJL) – Koratla (KRLA)	14.1	0.0052	6500	34
3	Koratla (KRLA) – Metpalli (MTPI)	5.3	0.0025	7000	18
4	Metpalli (MTPI) – Mortad (MRTD)	6.1	0.0033	8500	28


नरेश भंडारी/NARESH BHANDARI
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