



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/TNG-69 / 487-89

Date : 12.04.2019

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 LILO from 220 kV KTPS-Shapurnagar SC line to proposed 400/220 kV SS Jangaon in Jangaon District

Reference: i) BSNL letter no. SR-PTCC/STS-2206/04 dated 13.12.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201911 RTD dated 21.02.2019
iii) Defence letter no. B/46937/Sigs 7(b)/1265 dated 26.12.2018

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 25,000 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. 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

Yours faithfully,


(Naresh Bhandari)
Chief Engineer

Copy to:

1. GM (S&T), Head Quarters Office, Signal & Telecomm Branch, South Central Railway, Rail Nilayam, Secunderabad – 500025 (Annexure-II only)
2. Chief Engineer, Construction, TSTRANSCO, Vidyut Soudha, Hyderabad-500082

ANNEXURE - I

Case No.: TNG-69 Name of the Power line: 220 kV LILO from 220 kV KTPS-Shapur Nagar SC line to proposed 400/220 kV SS Jangaon in Jangaon District		Map Scale : 1cm=500mts Total Length : 24 Km. Soil Resistivity : 25000 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-2206/04 dated 13.12.2018					
Jangaon Exchange					
1	Exchange to P21	IV LESS THAN 430 V			
2	Exchange to P22				
3	Exchange to P23				
4	Exchange to P24				
5	Exchange to P25				
6	Exchange to P26				
Pemberthy Exchange					
1	Exchange to P21	OUTSIDE IV CONSIDERATION ZONE			

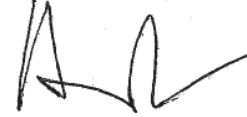


नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE - II

Case No.: TNG-69 Name of the Power line: 220 kV LILO from 220 kV KTPS-Shapur Nagar SC line to proposed 400/220 kV SS Jangaon in Jangaon District		Map Scale : 1cm=500mts Total Length : 24 Km. Soil Resistivity : 25000 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/SCRTS201911 RTD dated 21.02.2019					
1	Wangapalli (WP) – Aler (ALER)	OUT OF PARALLELISM			0
2	Aler (ALER) – Pembarti (PBP)	3.6	0.0047	6000	28
3	Pembarti (PBP) – Janagaon (ZN)	6.5	0.0019	8000	15
4	Janagaon (ZN) – Raghunathpalli (RGP)	1.4	0.0011	10000	11



नरेश भंडारी/NARESH BHANDARI
 मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
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Tele : 23019746

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

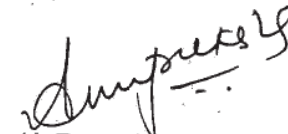
B/46937/Sigs 7(b)/1265/

26 Dec 2018

Chief Engineer,
Construction
Transmission Corporation of Telangana Ltd
Vidyut Soudha.
Hyderabad - 500 082

ERECTION OF 220KV DC LINE (24.0 KM) BY MAKING LILO FROM EXISTING 220KV KTPS-SHAPURNAGAR SC LINE TO PROPOSED 400/220KV SS JANGAON IN JANGAON DISTRICT ON TURNKEY BASIS-PTCC PROPOSALS-REG.

1. Ref your Lr. No. CPT-320/SE-Const/F.No. 220KV LILO line to Jangaon/PTCC/D.No. 1095/2018 dt 12 Sep 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 returned herewith for your further necessary 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.