



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-89/974-976

Date : 27.09.2019

The Divisional Engineer Telecom (PTCC),  
QA & Inspection (T&D) circle, BSNL,  
1<sup>st</sup> 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 line from existing 220 kV line KTS – Manuguru-I T.No.-82 to proposed 220/11 kV B.G. Kothur SS

**Reference:** i) BSNL letter no. SR-PTCC/STS-2441/07 dated 07.08.2019  
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRSTS201942 RTD dated 31.05.2019  
iii) Defence letter no. B/46937/Sigs 7(b)/1623 dated 24.06.2019

Sir,

The instant PTCC proposal has been examined. The low frequency induction on 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 20,000 Ohm-cm. The voltages likely to be induced on paralleling Block & Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annex-I. The screening factors, as applicable, have been considered. Vide ref. (i) above, BSNL have informed that there are no telecom lines/cables or assets within paralleling distance of 8 km from proposed power line. Vide ref. (iii) above, Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annex-II). Taking above into consideration, kindly take necessary action for PTCC route approval.

**Encl.:** As above.

राजेश्वर प्रसाद सिंह  
27.09.19 (R. P. Singh)  
Director, PTCC

Copy to:

- 1) GM (S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad, Telangana – 500025 (Annex – I only)
- 2) Chief Engineer, 400 kV, TSTRANSCO, Vidyut Soudha, Hyderabad - 500082

M/C

## ANNEXURE - I

<b>Case No.:</b> TNG-89 <b>Name of the Power line:</b> 220 kV LILO line from existing 220 kV line KTS – Manuguru-I T.No.-82 to proposed 220/11 kV B.G. Kothur SS		<b>Map Scale</b> : 1cm=500mts <b>Total Length</b> : 0.515 Km. <b>Soil Resistivity</b> : 20000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

<b>South Central Railway</b> letter no. SG.85/4/3/PTCC/SCRTS201942 RTD dated 31.05.2019					
1	Pandurangapuram – Aswapuram	0.15	0.0001	10000	1
2	Aswapuram - Manuguru	0.3	0.0001	10000	1

राघवेंद्र प्रताप सिंह  
 राघवेंद्र प्रताप सिंह  
 RAGHUVENDRA PRATAP SINGH  
 निदेशक / Director  
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.  
 विद्युत मंत्रालय / Ministry of Power  
 भारत सरकार / Govt. of India  
 नई दिल्ली / New Delhi-68

Annex-II  
TNG 89

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)/1623

24 Jun 2019

The Chief Engineer,  
Transmission Corporation of Telangana Limited  
400kV, TSTRANSCO  
Vidyut Soudha,  
Hyderabad - 500 082

**ERECTION SITA RAMA LIFT IRRIGATION SCHEME-ERECTION OF LILO OF ONE CIRCUIT  
OF 220KV KTPS-MANUGURU LINE TO PROPOSED 220/11KV B.G. KOTHUR SUBSTATION  
AT BHADRADRI, KOTHAGUDEM DISTRICT-0.515KM-PTCC PROPOSALS-FORWARDED-  
REGARDING**

1. Ref your letter No Lr. No. CE/400kV/SE-I/D2-A3/Sita Rama LIS/D.No. 79/19 dt 30 Apr 2019 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your above mentioned letter.
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.