



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/AND-678/277-279

Date: 08.03.2019

The Divisional Engineer Telecom,
PTCC, T&D circle, BSNL,
No.26, 1st floor, Raj Bhavan Exchange,
Sardar Patel Road,
Guindy, Chennai-600032


Subject: Induced Voltage calculation in respect of PTCC proposal for 220 kV DC/SC (2-ph) line from existing 220/11 kV Nasuralla substation to proposed 220/25 kV RTSS Pendekallu

Reference: i) BSNL letter no. SR-PTCC/SAP-1970/03 dated 24.03.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRAP201838 RTD dated 17.09.2018
iii) Defense letter no. B/46937/Sigs 7(b)/924 dated 13.03.2018

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 reference has 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 circuits under Single Line to Ground (SLG) fault condition have been computed and are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered. Vide Ref. (iii) above, the Defense authority have issued No Objection Certificate (NOC) (a copy is enclosed at Annex-III).

Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above


(Naresh Bhandari)
Chief Engineer

Copy to:

- (i) GM (S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad - 500025 (Annexure II only).
(ii) Chief Engineer, Construction., APTRANSCO, Vidyut Soudha, Vijayawada -520004

M/C

ANNEXURE - I

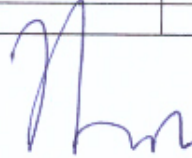
Case No.: AND-678
 Name of the Power line:
 220 kV DC/SC (2-ph) line from existing 220/11 kV
 Nasuralla substation to proposed 220/25 kV RTSS
 Pendekallu

Map Scale : 1cm=500mts
 Total Length : 10.411 Km.
 S.R. Value : 50,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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BSNL					
Ref. No. SR-PTCC/SAP-1970/03 dated 24.03.2018					
Affected Telecom Cables Details					
Pendekal RS Exchange					
1	Exchange to SBI DP				
2	Exchange to Post Office DP				
3	Exchange to Railway Station				
4	Exchange to Ramakonda Circle				

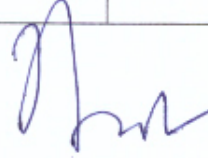
IV LESS THAN 430 V


 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.: AND-678 Name of the Power line: 220 kV DC/SC (2-ph) line from existing 220/11 kV Nasuralla substation to proposed 220/25 kV RTSS Pendekallu		Map Scale : 1cm=500mts Total Length : 10.411 Km. S.R. Value : 50,000 Ohms-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					
Ref. No. SG.85/4/3/PTCC/SCRAP201838 RTD dated 17.09.2018					
1	Tuggali (TGL) – Edduladoddi (EDD)	OUT OF PARALLELISM			0
2	Edduladoddi (EDD) – Pendekallu (PDL)	OUT OF PARALLELISM			0
3	Pendekallu (PDL) – Linganenidoddi (LMD)	3.05	0.0133	10000	133
4	Linganenidoddi (LMD) – Malyal (MYL)	OUT OF PARALLELISM			0
5	Pendekallu (PDL)–Ramalingayapalli(RMPL)	OUT OF PARALLELISM			0


 नरेश बंडारी / NARESH BHANDARI
 मुख्य अभियंता / Chief 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

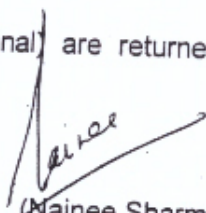
B/46937/Sigs 7(b)/924/

13 Mar 2018

Chief Engineer,
Construction
Vidyut soudha,
Vijayawada - 520004

**ERECTION OF 220KV, 2 PHASE DC/ SC LINE FROM THE 220KV SS
NANSURALLA TO THE PROPOSED RTSS PENDEKALLU (10.411km)
FOR EXTENSION OF LSUPPLY TO RTSS PENDEKALLU IN KURNOOL
DISTRICT**

1. Reference your letter No. CPT 140/SE/PM/F,RTSS/Pendekallu/
PTCC/D. No.2160/2018 dt 08 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.