



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-680 / 2368-70

Date: 05.11.2018

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 LILO from Loc. No. 29 of Nannur - Regumanugadda 220 kV line to existing 220/11 kV substation at Brahmanakotkur in Kurnool District

Reference: i) BSNL letter no. SR-PTCC/SAP-2106/10 dated 18.09.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRAP201812 RTD dated 23.02.2018
iii) Defense letter no. B/46937/Signs 7(b)/987 dated 14.03.2018


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 60,000 Ohm-cm, as intimated by the Power Authority (APTRANSCO). 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

M/c

Yours faithfully,


(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, Lift Irrigation, EA & OPN., APTRANSCO, Vidyut Soudha, Gunadala, Vijayawada - 520004



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Power Communication Development Division

सं. के.वि.प्रा. /पीसीडी /पीटीसीसी /एएनडी-680 /2368-70

दिनांक: 05.11.2018

डिवीजनल इंजीनियर टेलीकॉम (पीटीसीसी),
क्यू ए एंड इंसपेक्शन (टी एंड डी) सर्कल, बीएसएनएल,
1 तल, राज भवन एक्सचेंज,
नं 26, सरदार पटेल रोड,
गुडंडी, चेन्नई -600032

विषय: 220 केवी नान्नुर - रेगुमनुगुड्डा लाइन के location no. 29 से 220/11 केवी ब्रह्मानाकोत्कुरु उपकेन्द्र तक 220 केवी डी/सी लिलो लाइन का पीटीसीसी प्रस्ताव - प्रेरित वोल्टेज गणना

- संदर्भ: i) बीएसएनएल का पत्र संख्या SR-PTCC/SAP-2106/10 दिनांक 18.09.2018
ii) दक्षिण पश्चिम रेलवे पत्र संख्या/ SG.85/4/3/PTCC/SCRAP201812 RTD दिनांक 23.02.2018
iii) रक्षा पत्र संख्या B/46937/Signs 7(b)/987 दिनांक 14.03.2018

महोदय,

तत्काल पीटीसीसी प्रस्ताव की जांच की गई है। दक्षिण मध्य रेलवे के ब्लॉक एवं दूरसंचार सर्किट और बीएसएनएल के दूरसंचार केबलों पर कम आवृत्ति प्रेरण; संदर्भ के अनुसार प्रस्तुत विवरण के संबंध में गणना की गई है। मृदा प्रतिरोधकता (एसआर) मूल्य को 60,000 ओम-सेमी लिया गया है, जैसा कि बिजली प्राधिकरण (एपीट्रानस्को) द्वारा सूचित किया गया है। बीएसएनएल के दूरसंचार केबलों और दक्षिण मध्य रेलवे के ब्लॉक एवं दूरसंचार सर्किटों पर प्रेरित वोल्टेज की गणना क्रमशः अनुलग्नक- I और II में संलग्न हैं। संदर्भ (iii) के द्वारा रक्षा प्राधिकरण ने एनओसी जारी किया है (प्रतिलिपि अनुलग्नक- III में संलग्न है)।

यह ध्यान में रखते हुए, पीटीसीसी रूट अनुमोदन के लिए आवश्यक कार्यवाही करें।

संलग्न : ऊपरोक्त अनुसार

आपका अभ्यारी,

(नरेश भंडारी)

मुख्य अभियन्ता


कॉपी:

- (i) मुख्य प्रबंधक (सिवदू), दक्षिण मध्य रेलवे, मुख्यालय कार्यालय, सिग्नल व दूरसंचार शाखा, रेल निलयम, सिकंदराबाद - 500025 (अनुलग्नक II केवल)
(ii) मुख्य अभियंता, LIFT IRRIGATION, EA& OPN., एपीट्रानस्को, विद्युत सौधा, गुनाडाला, विजयवाड़ा -520004

ANNEXURE - I

Case No.: AND-680 Name of the Power line: 220 kV DC LILO from Loc. No. 29 of Nannur - Regumanugadda 220 kV line to existing 220/11 kV substation at Brahmanakotkur in Kurnool District			Map Scale : 1cm=500mts Total Length : 13.02 Km. S.R. Value : 60,000 Ohms-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

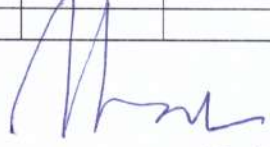
BSNL					
Ref. No. SR-PTCC/SAP-2106/10 dated 18.09.2018					
Affected Telecom Cables Details					
A	Brahmana kotkur Exchange				
1	Exchange to DP1	IV LESS THAN 430 V			
2	Exchange to DP9				
3	Exchange to Damagatla Mini Pillar				
4	Exchange to DP 26				
5	Exchange to Bollavaram				
6	Exchange to Joint 2				
7	Exchange to P 22				
8	Exchange to P 21				
9	Exchange to DP 21				
10	Exchange to DP 14				
11	Exchange to DP 19				
12	Exchange to DP 17				
B	Kadumur Exchange				
1	Exchange to Pillar	IV LESS THAN 430 V			
2	Exchange to DP 5				
3	Exchange to Devanur				
C	Gargeyapuram Exchange				
1	Exchange to Diguwapadu Mini Pillar	1.5	0.0853	7000	597
2	Exchange to DP 35	1.7	0.0891	7000	624
3	Exchange to Kethavaram – DP44	IV LESS THAN 430 V			
4	Exchange to Church				
5	Exchange to Bus Stand				
6	Exchange to Opp. Diguwapadu				
7	Exchange to Exg Opposite				
8	Exchange to Temple				
9	Exchange to OH Near TE				
D	Military Colony Exchange				
1	Exchange to Paupula Road	IV LESS THAN 430 V			
2	Exchange to Pasupula Village				
3	Exchange to Church				
4	Exchange to Kurnool Road				
5	Exchange to Yellamma Temple				


 मुख्य अभियंता/Chief Engineer
 क्षेत्रीय विद्युत प्रधिकरण/C.E.A.
 सेवा भवन, आर.जे. गुरु,
 - पुर्णम, कर्नाटक, कर्नाटक

ANNEXURE - II

Case No.: AND-680 Name of the Power line: 220 kV DC LILO from Loc. No. 29 of Nannur - Regumanugadda 220 kV line to existing 220/11 kV substation at Brahmanakotkur in Kurnool District			Map Scale : 1cm=500mts Total Length : 13.02 Km. S.R. Value : 60,000 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/SCRAP201812 RTD dated 23.02.2018					
1	Dupadu (DUU) – Kurnool City (KRNT)	OUT OF PARALLELISM			0


 मुख्य अभियंता/Chief Engineer
 केन्द्रीय विद्युत प्रणाली/C.E.A.
 रेलवे भवन, आर.डी. गुरु,
 Secy, P. O. Box No. 100, Secy,
 Secy, P. O. Box No. 100, Secy,

Annexure - III

Tele : 23019746

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

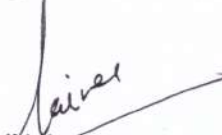
B/46937/Sigs 7(b)987/

14 Mar 2018

Chief Engineer
Lift Irrigation, EA & OPN,
Vidyut Soudha, Gunadala
Vijayawada - 520004

**ERECTION OF 220KV LILO LINE FROM LOC No. 29 OF NANNUR -
REUMANUGADDA 220KV LINE TO THE EXISTING 220/11KV SS AT
BRAMHANAKOTKUR IN KURNOOL DIST**

1. Reference your letter No. CE(LI)/SE(lis)/DE-2/ADE-3/PTCC/
F.B'Kotkur/ D.No.44/18 dt 09 Feb 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
LD & T Division, NREB Complex
18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110016

- For information.