



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-45 / 2018-20

Date : 21.08.2018

23

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 Calculations in respect of PTCC proposal for 220kV Twin Moose DC line to proposed 220/11 kV SS Gunjapadugu (Annaram Pump House) from 400/220/11 kV Yellampalli SS (Sundilla Pump House) in Peddapalli District.

Reference: i) BSNL letter no. SR-PTCC/STS-2025/08 dated 09.08.2018
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRTS201808 RTD dated 31.01.2018
iii) Defense letter no. B/46937/Sigs 7(b)/958 dated 06.03.2018

Sir,

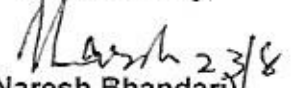
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block and Telecom circuits of South Central Railway with respect to details furnished vide above reference has been computed. The Soil Resistivity (SR) value has been taken as 20,000 Ohm-cm, as intimated by the Power authority (TSTRANSCO). The voltages likely to be induced on paralleling telecom cables of BSNL and Block and Telecom circuits of South Central Railway under single line to ground fault condition have been computed and are enclosed at Annex-I and Annex-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

m/c

Yours faithfully,


(Naresh Bhandari)
Chief Engineer

Copy to:

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



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Power Communication Development Division

नंबर / सीईए / पीसीडी / पीटीसीसी / टीएनजी-45 / 2018-20

दिनांक: 21.08.2018

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: पीटीसीसी रूट प्रस्ताव - 220 केवी ट्विन मूस डी / सी लाइन 400/220/11 केवी येल्लमपल्ली उपकेन्द्र (सन्दिक्ता पंप हाउस) से प्रस्तावित 200/11 केवी गुन्जापदुगु उपकेन्द्र (अन्नाराम पंप हाउस) के संबंध में प्रेरित वोल्टेज की गणना।

संदर्भ: i) बीएसएनएल पत्र संख्या SR-PTCC/STS-2025/08 दिनांक 09.08.2018

ii) दक्षिण मध्य रेलवे पत्र संख्या SG.85/4/3/PTCC/SCRTS201808 RTD दिनांक 31.01.2018

iii) रक्षा सन्दर्भ सं. B/46937/Sigs 7(b)/958 दिनांक 06.03.2018

महोदय,

तत्काल पीटीसीसी प्रस्ताव की जांच की गई है। उपर्युक्त संदर्भों में दिए गए विवरण के अनुसार, दूरसंचार / रेलवे सर्किट पर निम्न आवृत्ति प्रेरण (Low frequency induction) की जांच की गई है। औसत मृदा प्रतिरोधकता 20,000 ओम-सेमी ली गयी है। सिंगल लाइन to ग्राउंड फाल्ट अवस्था में समानांतर बीएसएनएल एवं रेलवे सर्किट पर प्रेरित वोल्टेज (Induced Voltage) क्रमशः अनुलग्नक -I एवं II में संलग्न हैं। स्क्रीनिंग कारक (screening factor) का मान यथानुरूप लिया गया है। रक्षा प्राधिकरण ने उपरोक्त सन्दर्भ (iii) के द्वारा अनापत्ति प्रमाण पत्र (No objection certificate) जारी किया है। (अनुलग्नक - III में प्रतिलिपि संलग्न)।

अतः आपसे अनुरोध है कि ट्रांसमिशन लाइन के लिए पीटीसीसी रूट अनुमोदन के संबंध में आगे की आवश्यक कार्रवाई करने की कृपा करें।

संलग्न: ऊपरोक्त अनुसार

आपका आभारी,

(नरेश भंडारी)

मुख्य अभियन्ता

कॉपी:

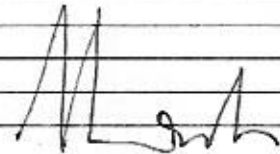
i) जीएम (एसएंडटी), दक्षिण मध्य रेलवे, मुख्यालय कार्यालय, सिग्नल और दूरसंचार शाखा, रेल निलयम, सिक्कराबाद-500025 - (संलग्नक - II केवल)

ii) कार्यकारी निदेशक, Lift Irrigation Scheme, TSTRANSCO, विद्युत सौधा, हैदराबाद -500082

ANNEXURE - I

Case No.: TNG-45					
Name of the Power line: 220kV Twin Moose DC line to proposed 220/11 kV SS Gunjapadugu (Annaram Pump House) from 400/220/11 kV Yellampalli SS (Sundilla Pump House) in Peddapalli District		Map Scale : 1cm=500mts Total Length : 28.60 Km. Average Soil Resistivity: 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.

BSNL letter no. – SR-PTCC/STS-2025/08 dated 09.08.2018					
1	Godavarikhani Exchange				
G1	Exchange to DP 6901 through P 69	IV LESS THAN 430 V			
G2	Exchange to DP 4101 through P 41				
G3	Exchange to DP 7201 through P 72				
G4	Exchange to DP 2801 through P 28				
		1.8	0.0202	8000	162
2	Tilaknagar Exchange				
T1	Exchange to DP 3101 through P 31	IV LESS THAN 430 V			
T2	Exchange to DP 5401 through P 54				
T3	Exchange to DP 2201 through P 22				
T4	Exchange to DP 2101 through P 21				
3	Power House Exchange				
P1	Exchange to DP 2901 through P 29	IV LESS THAN 430 V			
P2	Exchange to DP 2701 through P 27				
P3	Exchange to DP 3101 through P 31	0.7	0.0087	6000	52
P4	Exchange to DP 2301 through P 23	IV LESS THAN 430 V			
4	Jyothinagar Exchange				
J1	Exchange to P 41 to Pillar 31	IV LESS THAN 430 V			
J2	Exchange to 22 to Pillar 21				
J3	Exchange to DP 2801 through P 28				
J4	Exchange to DP 2301 through P 23				
J5	Exchange to Pillar MP				
		2.8	0.0837	6000	502
		1.5	0.0099	6000	59
5	FCI Exchange				
F1	Exchange to DP 5201 through P 52	IV LESS THAN 430 V			
F2	Exchange to DP 32 through P 32				
F3	Exchange to P21 to Pillar 21 A				
F4	Exchange to DP 2201 through P 22				
6	Ramagundam Exchange				
R1	Exchange to DP 2101 through P 21	IV LESS THAN 430 V			
R2	Exchange to P 27 to Pillar 28 – DP 2801				
R3	Exchange to P 22 to Pillar 29 – DP 2901				



ANNEXURE – II

Case No.: TNG-45					
Name of the Power line: 220kV Twin Moose DC line to proposed 220/11 kV SS Gunjapadugu (Annaram Pump House) from 400/220/11 kV Yellampalli SS (Sundilla Pump House) in Peddapalli District		Map Scale : 1cm=500mts Total Length : 28.60 Km. Average Soil Resistivity: 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.

SOUTH CENTRAL RAILWAY letter no. – SG.85/4/3/PTCC/SCRTS201808 RTD dated 31.01.2018					
AFFECTED BLOCK & TELECOM CIRCUITS DETAIL					
1	Mandamari (MMZ) – Manchiryal (MCI)	Out of Parallelism			0
2	Manchiryal (MCI) – Peddampet (PPZ)	3.7	0.0039	10000	39
3	Peddampet (PPZ) – Ramagundam (RDM)	3.75	0.0028	10000	28
4	Ramagundam (RDM) - Raghavapurams	Out of Parallelism			0



मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.के. पुरम,
 Sewa Bhawan, R.K. Puram,
 नई दिल्ली-66/New Delhi-66

Tele : 23019746

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

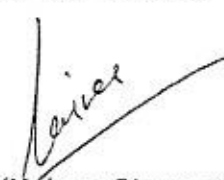
B/46937/Sigs 7(b)/958/

06 Mar 2018

Executive Director
 Lift Irrigation Schemes,
 TSTRANSCO
 Viidyut Soudha,
 Hyderabad - 500082

**ERECTION OF 400KV QMDC LINE FROM 400/220/11KV
 YELLAMPALLI (SUNDILLA PUMP HOUSE) SUB-STATION TO
 GUNJAPADUGU (ANNARAM PUMP HOUSE) 220/11KV
 SUBSTATION IN KARIMNAGAR DISTRICT**

1. Reference your letter No ED(LIS)/SE(LD)/DE1(LI)/ADE4/PTCC/220 KV Annaram/D.No.55/2018. dt 17 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.