



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/KNK-857/587-89

Date:22.05.2019

DET (PTCC),  
QA & Inspection (T&D) Circle, BSNL  
1 Floor, Raj Bhavan Exchange,  
No. 26, Sardar Patel Road,  
Guindy, Chennai – 600032

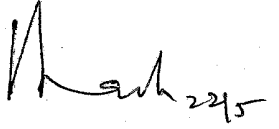
**Subject:** Induced Voltage Calculation in respect of PTCC proposal for 220 kV S/C line on D/C towers from Under-Construction Ayyanahalli 220/66 kV KPTCL S/S to existing 220/11 kV M/s BMM Ispat Ltd S/S in Hospet Taluk, Bellary District

**Reference:** (i) BSNL letter no. SR-PTCC/SKT-1249/6 dated 23.01.2019  
(ii) South Western Railway letter no. SG/SWR/PTCC/F-2424/1461 dated 08.09.2016  
(iii) Defense letter no. B/46937/Sigs 7(b)/332 dated 05.09.2016

Sir,

The instant PTCC proposal has been examined. Low frequency induction on Block & Telecom circuits of South Western Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 40,000 Ohm-cm. The voltages likely to be induced on paralleling Block & Telecom circuits of South Western Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I. The screening factors, as applicable, have been considered. Vide ref. (i) above, BSNL have intimated non-existence of telecom assets within 8 kms boundary of the proposed power line. Therefore, IV calculation on BSNL circuits is not required. Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – II). Taking above into consideration, kindly take necessary action for PTCC route approval.

**Encl.:** As above

  
(Naresh Bhandari)  
Chief Engineer

**Copy to:**


- 1) CSTE, South Western Railway, 1st Floor, West Block, New Zonal office building, Gadag Road, Hubli – 580020 (Annex – I only)
- 2) Chief Engineer Electricity, KPTCL, State Load Despatch Centre, No. 28, R.C. Cross Road, Bengaluru - 560009

M/c

**ANNEXURE - I**

<b>Case No.: KNK-857</b>					
<b>Name of the Power line:</b> 220 kV S/C line on D/C towers from Under-Construction Ayyanahalli 220/66 kV KPTCL S/S to existing 220/11 kV M/s BMM Ispat Ltd S/S in Hospet Taluk, Bellary District		<b>Map Scale</b> : 1cm=500mts <b>Total Length</b> : 4.741 km <b>Soil Resistivity</b> : 40,000 Ohm-cm			
<b>S.No.</b>	<b>Telecom. Details</b>	<b>Length of Parallelism in Km.</b>	<b>Mutual Coupling in Ohms.</b>	<b>Effective Fault current in Amps.</b>	<b>I.V in Volts.</b>

<b>South Western Railway</b> letter no. SG/SWR/PTCC/F-2424/1461 dated 08.09.2016					
1	TUNGABHADRADAM (TBDM) – VYASANKERE (VYS)	OUTSIDE IV CALCULATION CONSIDERATION ZONE			0
2	VYASANKERE (VYS) – VYASA COLONY (VC)	0.3	0.0002	6000	1
3	VYASA COLONY (VC) – RAMGAD (RMGD)	0.3	0.0019	8000	15
4	RAMGAD (RMGD) – HUGARBOMANNAHALI (HBI)	4.7	0.0201	8000	161

  
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

KNK-857

Annex-II

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)/332/

05 Sep 2016

Chief Engineer Electricity,  
Karnataka Power Transmission Corporation Ltd  
State Load Despatch Centre,  
#28, R.C. Cross Road  
Bangalore - 560009

**PROPOSED 220KV SC LINE ON DC TOWER FROM THE EXISTING 220/66KV SS  
AT AYYANAHALLI (UNDER-CONSTRUCTION) TO THE EXISTING  
220/11KV SS BMM ISPAT LTD (HKT MINING PVT LTD)  
IN HOSPET TALUK, BELLARY DISTRICT**

1. Ref your letter No CEE/SLDC/PTCC/F-2424/5430 - 37 dated 30 Jul 2016.
2. NOC (No Objection Certificate) 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.



(BS Kunwar)  
Lt Col  
GSO 1 (Comn)  
for SO-in-C

**Enclosures** : (As above)

**Copy to :-**

✓ The Director (PCD), PTCC,  
Central Electricity Authority,  
LD & T Division, NREB Building,  
18A - Saheed Jeet Singh Marg,  
New Delhi - 110016

- for information please.