



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-898/474-476

Date:11.04.2019

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 400 kV Double LILO line from existing 400 kV DC UPCL Plant, PGCIL – Shantigramma line to proposed 400/220 kV station at Hebbanahalli village (DC-4) for Yettinahole Integrated Drinking Water Supply Scheme

Reference: (i) BSNL letter no. SR-PTCC/SKT-2090/08 dated 27.11.2018
(ii) South Western Railway letter no. SG/SWR/PTCC/F-2751/1757 dated 21.08.2018
(iii) Defense letter no. B/46937/Sigs 7(b)/1064 dated 23.05.2018

Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and 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 25,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Western Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I & 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

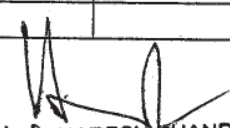

(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) PCSTE, South Western Railway, Office of the Principal Chief Signal & Telecom Engineer, 1st Floor, West Block, Rail Soudha, Gadag Road, Hubli – 580020 (Annex – II only)
- 2) Chief Engineer Electricity, KPTCL, State Load Despatch Centre, No. 28, R.C. Cross Road, Bengaluru - 560009

M/C-


Case No:SKT-2090		SSA:Hassan			
Name of the power line		Proposed 400 Double LILO line from existing 400KV DC UPCL plant PGCIL to Shantigrama line to proposed 400/220 KV Station at Hebbanahalli village(DC-4) for Yettinahole Integrated Drinking water supply scheme in Hassan District.			
Length:	0.325 Kms	Map scale : 1cm = 500 mts			
SR Value : 25000 Ω -cm		Type of BSNL Cable: PIJF cable			
Sl.No.	Name of Telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts
I	(A) AREHALLY Exge UG cables				
1	Exge to Sakleshpura Road(A-A1)	OUT OF PARALLELISM			
2	Exge to Panchayath Office road(A-A2)	}	IV	LESS	THAN 430 V
3	Exge to george Malnad School road(A-A3)				
4	Exge to Lingapura(A-A4)				
5	Exge (A) to A5 towards Hebbala(A-A5)	OUT OF PARALLELISM			
II	(B ₁) BIKKODU Exge UG cables				
1	Exge to Arehally Road(B ₁ -B ₁ 1)	}	OUTSIDE	IV	CONSIDERATION
2	Exge to Belur Road(B ₁ -B ₁ 2)				
3	Exge to Intekolalu Road(B ₁ -B ₁ 3)				
III	(K) KESAGODU Exge UG cables				
1	Exge to Holalu Vatehally(K-K1)	OUT OF PARALLELISM			
2	Exge to Hospital Road(K-K2)				
V	(BG) BALEGADDE Exge UG cables				
1	Exge to Halslige(BG-BG1)	}	OUT	OF	PARALLELISM
2	Exge to Achangi(BG-BG2)				
3	Exge to Shetty Chowltry(BG-BG3)				
VI	(B) BALLUPETE Exge UG cables				
1	Exge to Yeslur Road(B-B1)	}	OUT	OF	PARALLELISM
2	Exge to Hassan Road(B-B2)				
3	Exge to Sakleshpura Road(B-B3)				
4	Exge to Rajendrapur Road(B-B4)				
VII	(U) UDEVERA Exge UG cables				
1	Exge to Kallahalli(U-U1)	IV LESS THAN 430 V			
2	Exge to Sundekere(U-U2)				


 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.: KNK-898					
Name of the Power line: 400 kV Double LILO line from existing 400 kV DC UPCL Plant, PGCIL – Shantigrama line to proposed 400/220 kV station at Hebbanahalli village (DC-4) for Yettinahole Integrated Drinking Water Supply Scheme		Map Scale : 1cm=500mts Total Length : 0.325 km Soil Resistivity : 25,000 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 WESTERN RAILWAY letter no. – SG/SWR/PTCC/F-2751/1757 dated 21.08.2018					
1	Sakleshpur (SKLR) – Ballupete (BLLT)	OUT OF PARALLELISM			0
2	Ballupete (BLLT) – Alur Halt (ALUR)	0.325	0.0001	15000	2


 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

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)/1064 /

27 May 2018

Chief Engineer (Electricity)
Load Despatch Centre
28, R.C. Cross road,
Bangalore - 560009

**PROPOSED 400 KV DOUBLE LILO LINE FROM EXISTING 400 KV D/C UPCL
PLANT, PGCIL, SHANTIGRAMA LINE TO PROPOSED 400/220 KV STATION AT
HEBBANAHALLI VILLAGE (DC-4) FOR YETTINAHOLE INTEGRATED
DRINKING WATER SUPPLY SCHEME IN HASSAN DIST.**

1. Reference your letter No. GEE/LDC/PTCC/F-2752/3710-79 dated 3 Apr 2018.
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


Bikram Kunwar)
Lt Col
GSO 1 (Comm)
for SO-in-C

Copy to :

Director, PTCC, CEA,
Load Dispatch & Telecommunication Division,
NREB Copmplex, 18A, Shaheed Jeet Singh Marg,
Katwaria Saria, New Delhi - 110016

- for information