



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युतसंचारविकासप्रभाग

Power Communication Development Division

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No. CEA/PCD/PTCC/MRA-1157/~~515~~ 515-16

Date: 11.09.2020

**Subject: Induced Voltage calculation in respect of PTCC proposal for 220 kV D/C line, LILO on one ckt. Of 220 kV Deoli (PG) – Ghatodi D/C line for existing 220 kV Yavatmal S/s, length = 10.2 kms.**

**Ref:** (i) MSETCL letter no. MSETCL/CO/PS/S-I/PTCC/B-566/01441 dated 15.02.2019  
(ii) BSNL letter no. IC/MBI/PTCC/MRA-2413/04 dated 01.07.2019  
(iii) Central Railway letter no. N.153/PTCC/220kV/MAH-724 RC dated 12.07.2020  
(iv) Defense letter no. B/46937/Sigs 7(b)/1490 dated 28.03.2019

MSETCL submitted the subject proposal vide above cited reference (i). The low frequency induction on BSNL circuits as per details furnished vide above cited reference (ii) has been examined. The Soil Resistivity value has been taken as 15,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered. Central Railway and Defense have accorded NOC vide above reference (iii) and (iv) respectively for the above line (Copies enclosed at Annexure – II and Annexure – III respectively).

Taking above into consideration, take necessary action regarding issue of PTCC route approval.

Enclosures: As above.

*Upendra Kumar*  
11.09.2020

(Upendra Kumar)  
Chief Engineer

To,  
Divisional Engineer (PTCC), Inspection Circle,  
Bharat Sanchar Nigam Limited (BSNL),  
3<sup>rd</sup> Floor, D-Wing, BSNL Admin Building  
Juhu Tara Road, Santacruz (West), Mumbai-400054

*MIC*

Copy to:

1 Chief Engineer(Project Schemes), MSETCL, Plot No. C-19, E-Block, Prakashganga,  
Bandra-Kurla Complex, Bandra (East), Mumbai – 400051.



CEA office case No. MRA-1157	Map scale - 1cm = 500 meter
DET(PTCC) office case No - MRA-	Route length- 10.2 km.
Railway office case no. 2413	Soil resistivity- 15000 $\Omega$ -cm
Name of the power line	Lilo on 220 KV Deoli Ghatoli line for 220 KV Yavatmal s/stn.

Sr. No.	Name of the Telecom line / cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induced Voltage in Volts
1	(A) Sawargadh Exge.				
2	1- Exge to Ratchand	3.0 km	}		< 430 V
3	100 Prs				
4	2- Exge to Bus stop	0.3 km.			
5					
6	(B) Talegam Bheri - BTS Tower				< 430 V
7					
8	(C) Jodmoha Exge.				
9	1- Exge to Bus stn Pillar			OUT OF	IV CONSIDER
10	300 Prs	0.5 km.			ZONE
11					
12	(D) Yavatmal Main Exge.				
13	1- Exge to Darwaha Road		}		OUT OF PARALLELS
14	100 Prs	5.5 km.			
15	2- Exge to Armi Road				
16	Amrut Garden 400 Prs	4.0 km.			
17	Pillar				
18	3- Exge to cotton market				
19	200 Prs	3.0 km.			
20	4- Exge to Bhora Road				< 430 V
21	200 Prs	3.0 km			
22	5- Exge to Pandharkawda Rd.	4.0 km.			
23	100 Prs				

फ़राज़ / FARAZ  
 उप निदेशक / Deputy Director  
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.  
 विद्युत मंत्रालय / Min. of Power  
 भारत सरकार / Govt. of India  
 नई दिल्ली / New Delhi-66



CEA office case No. MRA-1157	Map scale - 1 cm = 500 meter
DET(PTCC) office case No - MRA-	Route length- 10.2 km.
Railway office case no. 2413	Soil resistivity- 15000 $\Omega$ -cm
Name of the power line	Lilo m 220 KV Deoli Ghatoli line to 220 KV Yamatal S/S.

Sr. No.	Name of the Telecom line / cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induced Voltage in Volts
(E)	Lohara Exge.				
2	1- Exge to Tirupati				
3	Nagar 800 ft.	0.15 kms.			430V
4					
5	2- Exge to MIDC 800 ft	1.0 km			
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फराज/FARAZ  
उप निदेशक/Deputy Director  
केन्द्रीय विद्युत प्राधिकरण/C.E.A.  
विद्युत मंत्रालय/Min. of Power  
भारत सरकार/Govt. of India  
नई दिल्ली/New Delhi-66



MRA - 1157

CENTRAL RAILWAY

Headquarters Office  
S&T Branch,  
3<sup>rd</sup> Floor, Annex Bldg,  
Mumbai CSMT.

No:- N.153/PTCC/220KV/MAH-724

Date: 22<sup>nd</sup> February 2019DET (PTCC),  
3<sup>rd</sup> Floor, "D" Wing,  
Admin Bldg., BSNL Complex  
Santacruz(W),  
Mumbai - 400 054.

Sub: PTCC proposal for 220kV DC line, LILO on one ckt of 220kV Deoli (PG) - Ghatodi DC line for existing 220kV Yavatmal SS.

Ref: MSETCL Office letter No. MSETCL/CO/PS/S-I/PTCC/B-566/01441 dated 15.02.2019.

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Vide your letter under reference, this to inform you that there are no Telecom and Signalling assets in vicinity to proposed power line falling under Lasina - Yavatmal section of Central Railway.

Hence, this office hereby issues NOC for the proposed power line.

( Vijay S Mohad )  
ESTE / Network / HQ  
For GM (S&T)  
Central Railway, CST Mumbai

Copy to: Chief Engineer (Projects Schemes)  
MSETCL, Prakashganga,  
Plot No. C-19, 'E' Block, BKC,  
Bandra (East),  
Mumbai - 400 051



Tele : 23019746

MRA-1157

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

B/46937/Sigs 7(b)/1490/

28 Mar 2019

Office of the Chief Engineer,  
Projects Schemes Department  
Maharashtra State Electricity Transmission Co. Ltd  
"Prakashganga", Plot No C-19, 'E' Block,  
Bandra - Kurla Complex, Bandra (East),  
Mumbai-400051

**PTCC PROPOSAL FOR 220KV DC LINE, LILO ON ONE CKT. OF 220KV DEOLI (PG)-  
GHATODI DC LINE FOR EXISTING 220KV YAVATMAL S/S, LENGTH=10.2KMS**

1. Ref your letter No MSETCL/CO/PS/S-I/PTCC/B-566/No 01441 dt 15 Feb 2019 (copy att).
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 forwarded herewith for your further action.

*(Handwritten Signature)*

(A Rawat)  
Maj  
GSO 1 (Comn)  
for SO-in-C

**Enclosures** : As above

**Copy to** :-

✓ The Director (PTCC), CEA  
Power Communication Development Division  
NRPC Complex, 18-A Shaheed Jeet Singh Marg  
Katwaria Sarai, New Delhi - 110016

for information.

*(Handwritten)*  
21A 255A  
8/4

*(Handwritten)*  
353  
8/4/2019