



भारत सरकार

Government of India

विद्युत विभाग

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युत संचार विकास प्रभाग

Power Communication Development Division

No. CEA/PCD/PTCC/MRA-1153/ 531-533

Date: 15.09.2020


Subject: Induced Voltage calculation in respect of PTCC proposal for 220 kV Malegaon - Manmad D/C line, length = 32.8 kms.

Ref: (i) MSETCL letter no. MSETCL/CO/PS/S-I/PTCC/B-562/823 dated 25.01.2019
(ii) BSNL letter no. IC/MBI/PTCC/MPA-2405 P.C dated 03.02.2020
(iii) Central Railway letter no. N.153/PTCC/220kV/MAH-716 dated 06.02.2019
(iv) Defense letter no. B/46937/Sigs 7(b)/1434 dated 12.03.2019

MSETCL submitted the subject proposal vide above cited reference (i). The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (ii) and (iii) respectively has been examined. The Soil Resistivity value has been taken as 10,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I&II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iv) for the above line (a copy enclosed at Annex-III).

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

Enclosures: As above.



(Upendra Kumar)
Chief Engineer

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

MIC

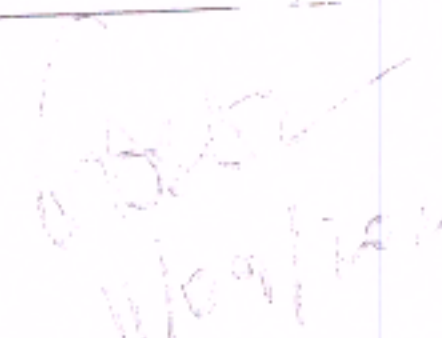
Copy to:

1. GM(S&T), Central Railway, CSMT Mumbai, Headquarters Office, S&T Branch, 3rd Floor, Annex Bldg, Mumbai CST, Mumbai-400001 (with Annexure-II).
2. Chief Engineer(Project Schemes), MSETCL, Plot No. C-19, E-Block, Prakashganga, Bandra-Kurla Complex, Bandra (East), Mumbai - 400051.

CEA office case No.	1103	Map scale - 1 cm = 500 meters
DET(PTCC) office case No.	MRA-2495	Route length- 32.8 kms
Railway office case no.		Soil resistivity 10,000 Ω-m
Name of the power line	132 kV Malpasa - Marnad DC line.	

Sr. No.	Name of the Telecom line / cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amperes	Induced Voltage in Volts
1	(A) Marnad Edge				
2	1- Edge to Shivajinagar Pillar		- 200 Pairs		
3					
4	2- Edge to Bithal chawk Pillar		- 200 Pairs		4500
5					
6	3- Edge to Police chawki Pillar		- 200 Pairs		
7					
8	4- Edge to maligaon chawk		- 400 Pairs		
9					
10					
11					
12					
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21					

Signature


 11/09/2016
 प्रसन्न / 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. 1107	Map scale - 1 cm = 500 meters
DET(PTOC) office case No-MRA-1	Route length - 2.8 km
Railway office case No. 2482	Soil resistivity - 1000 Ohm-cm
Name of the power line	Delhi - Jaipur - Lucknow - Meerut - Delhi line

Sr. No.	Name of the Telecom line / cable	Length of Parallelism in Mtrs.	Mutual Coupling in Ohms	Fault Current in Amperes	Induced Voltage in Volts
1	(B) Dabhadli Edge				
2	1- Edge to Grampanchayat	- 800 Pairs cable			
3	Pillar				2430V
4	2- Edge to Mariani Pillar	- 800 Pairs Pillar cable			
5					
6	(C) Patana Edge				
7	1- Edge to Bus Stand	- 100 Pairs cable			230V
8	Pillar				
9					
10	(D) Sonaj Edge				
11	1- Edge to village	- 100 Pairs cable			230V
12	Pillar				
13					
14	(E) Saundane Edge				
15	1- Edge to Hotel				
16	Ashiyana Pillar	- 200 Pairs cable			400V OF 10 Pairs
17	2- Edge to Bus stand	- 200 Pairs cable			200V
18	Pillar				
19					
20	(F) Jalgaon (MIL) Edge	- 50 Pairs cable			2430V
21	Edge to Kotak Mahindra				

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. 115	Map scale - 1 cm = 500 meters
DFT(PTDC) office case No. M.R. 4	Route length - 27.5 km
Railway office case no. 2-05	Soil resistivity - 10000 ohm-cm
Name of the power line	220 KV Muzaffarpur - Chhapra and B. L. line

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	(G) Sookarwadi Edge				
2	Edge to Yevand				
3	Village Chauki	-	50 Pairs cable		1400
4					
5	(H) Camp Edge				
6	1- Edge to Church Pillar	-	200 Pairs cable		
7	2- Edge to Hicharg Pillar	-	200 Pairs cable		
8					
9	(I) Malegaon Edge				
10	1- Edge to Girana Bridge	-	100 Pairs cable		
11	Pillar				
12	2- Edge to Salamanabad	-	200 Pairs cable		
13	Pillar				
14	3- Edge to Chandanpur	-	100 Pairs cable		
15	gate Pillar				
16	4- Edge to Hindustan Syring	-	200 Pairs cable		
17					
18	5- Edge to Babu Gandhi	-	100 Pairs cable		
19	Nagar Pillar				
20	6- Edge to Dyane village	-	100 Pairs cable		
21	(J) Kaulane Edge				
22	Edge to Nandgaon Phate	-	100 Pairs cable		1300

Signature & seal of concerned DFT (PTDC) Officer

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

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Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD (Army)
DHO PO, New Delhi - 110001

3428376/pt 18/274-80

13 March 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 MALEGAON-MANMAD DC LINE LENGTH=32.5KMS

1. Ref your letter No MSETCL/CO/PS/S-I/PTCC/B-562/No 823 dt 25 Jan 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.

(Signature)
(A Rawat)
Maj
GSO 1 (Comm)
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.

(Signature)
18/3/2019
18-03-19
34
18/3/2019