



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/MP-434/518-20

Date: 22.04.2019

DET (PTCC), Western Zone,
Bharat Sanchar Nigam Limited (BSNL),
O/o DET(PTCC), QA & Inspection Circle,
3rd Floor, D-Wing, BSNL Admin Bldg.,
Juhu Tara Road, Santacruz (West),
Mumbai – 400054.

Subject: Induced Voltage calculation in respect of PTCC proposal of LILO of 2nd circuit of 220 kV from Nagda to Neemuch at 220 kV S/S Daloda

Ref: (i) BSNL letter no. IC/MBI/PTCC/MP-552 dated 16.02.2019
(ii) Western Railway letter no. SG.158/28/10(L-175) dated 26.09.2018
(iii) Defense letter no. B/46937/Sigs 7(b)/1154 dated 08.08.2018

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) 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.(iii) for the line (a copy enclosed at Annex-III).

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

Encl.: As above

Yours faithfully,


(Naresh Bhandari)
Chief Engineer


Copy to:

- 1) Office of CSTE, Western Railway, S&T Dept. , 5th Floor, Station Building, Churchgate, Mumbai – 400020 (Only Annex II)
- 2) Chief Engineer(Procurement), MPPTCL, Block No. 3, Shakti Bhawan, Rampur, Jabalpur (M.P.) - 482008

MIC

Annex - I


CEA Office Case No.: MP-434		Map Scale: 1:50,000			
DET (PTCC) Office Case No.: IC/MBI/PTCC/MP-552		Route Length: 8.264 8.264 Kms			
Railway Office Case No.:		Average SR Value: 10,000 Ohm cms			
Name of Power Line		Line of 2nd circuit of 220kV from Nagda - Neemuch at 220kV S/S Dolada.			
S. No.	Name of Telecom Line/ Cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induce Voltage in Volts
	MANDSAUR SSA				
	SDOT Mandasaur				
(1)	Dalauda Exch to Pragati Chouraha - 800 Pair	} ← IV less than 430V →			
(2)	Pragati Chouraha to Dhamnod - 50 Pair				
(3)	Pragati Chouraha to Jain Mandir Pillar - 400 Pair				
(4)	Jain Mandir Pillar to MPEB Office - 20 Pair				
(5)	Rly Station Chouraha to Rlt Station - 100 Pair				
(6)	Dalauda Exch to Post Office - 200 Pair				
(7)	Post Office Pillar to Mandi - 50 Pair				
(8)	Post Office Pillar to Police-Chouki - 20 Pair				
(9)	Dalauda Exch to Dall Mills - 20 Pair	} ← out of 115m →			
(10)	Dhamnar to Guliyana - 50 Pair				
(11)	Dhamnar to Hatunia - 50 Pair	} ← IV less than 430V →			
(12)	Kachnara to Lasudiya - 50 Pair				
(13)	Nimbod to Dehri to Mijora - 50 Pair	} ← outside IV consideration zone →			
(14)	Nimbod to Khajuriya - 50 Pair				
(15)	Nimbod Exch to Nimbod Local - 50 Pair				
(16)	Semliya Hira to Patera - 50 Pair	} ← IV less than 430V →			
(17)	Semliya Hira to Rakoda - 20 Pair				
(18)	Amlabad to Sijpuriya - 50 Pair	} ← outside IV consideration zone →			
(19)	Amlabad to Rajakhedi - 50 Pair				
(20)	Rajakhedi to Richha Bachha - 20 Pair	} ← outside IV consideration zone →			
(21)	Sirsod Exch to Sirsod Village - 100 Pair				
(22)	Richha Lalmuha to Dalauda Sagra - 50 Pair	} ← IV less than 430V →			
(23)	Amlabad to Guridiya Lalmuhwa - 50 Pair				
(24)	Pandliya to Lalmuha - 20 Pair	} ← outside IV consideration zone →			


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.: MP-434 Name of the Power line: LILO of 2 nd circuit of 220 kV from Nagda to Neemuch at 220 kV S/S Daloda		Map Scale : 1cm=500mts Total Length : 8.264 Km. S.R. Value : 10,000 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

WESTERN RAILWAY					
Ref. No: SG.158/28/10(L-175) dated 26.09.2018					
Affected Blocks & Telcom Circuits Details					
1	Mandsor - Dalauda	---out of //sm---			0
2	Dalauda - Kachnara Road	8.0	0.0116	8500	99
3	Kachnara Road - Dhodhar	---out of //sm---			0


 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

ANEX-III

MP-434

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)/1154

08 Aug 2018

Madhya Pradesh Power Transmission Co Ltd
Chief Engineer (Procurement)
Block No 3 Shakti Bhawan,
Rampur, Jabalpur -482008

**PTCC ROUTE APPROVAL FOR CONSTRUCTION OF LILO OF 2ND CIRCUIT
OF 220 KV LINE FROM NAGDA (400KV) TO NEEMUCH (220KV) AT 220KV S/S
DALODA**

1. Reference your letter No 04-01/PTCC/2423/TR-1/2402 dt 28 May 2018.
(copy att).
2. No Objection Certificate (NOC) 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 for your
further necessary action



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

Enclosures : (As above)

Copy to :-

Director(PTCC)
Central Electricity Authority
Power Communication Development Division
NRPC Complex, 18-A, Shaheed Jeet Singh S Marg
Katwaria Sarai, New Delhi - 110016

- For information.