

I/33871/2024



सत्यमेव जयते

**भारत सरकार**  
**Government of India**  
**विद्युत मंत्रालय**  
**Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण**  
**Central Electricity Authority**  
**विद्युत संचार विकास प्रभाग**  
**Power System Communication Development**  
**Division**

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<b>CEA Case No. : MP-505</b>		
<b>Induced Voltage (IV) calculation for 400 kV D/C Neemuch PS to Mandsaur Transmission Line [Length - 118.065 km] – Regd.</b>		
<b>S. No</b>	<b>Reference No.</b>	<b>Dated</b>
(i)	PNTSL: WRTS-II/PNTSL/PTCC/001	22.06.2023
(ii)	PNTSL: WRTS-II/PNTSL/PTCC/003	05.02.2024
(iii)	PNTSL: e-Mail	15.02.2024
(iv)	BSNL: PTCC/WR/2021-22/MP-815	25.11.2023
(v)	Western Railway: SG.158/28/10/L-273	26.10.2023

The PTCC proposal submitted vide reference (i) & (iii) has been examined. The LF induction on Block and Telecom circuits of BSNL with respect to details furnished vide above reference (iv) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of BSNL under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. GM (S&T), Western Railways has issued No Objection Certificate (NOC) vide reference (v).

EPR zone for proposed S/S is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
400/220 kV Neemuch S/s	105	63	0.1	1433	913	N.A	N.A

As per the Telecom Details submitted by BSNL vide above reference (iv), no telephone exchange of BSNL is falling within the EPR zone of proposed 400/220 kV Substation.

Telecommunication details from DG Signals, MoD are pending. However, vide above reference (ii), PNTSL has shown urgency for charging the line and has requested for provisional PTCC clearance.

In view of the above, it is requested that provisional PTCC route approval may be issued for the subject transmission line under intimation to this office.

Encl.: As above

**Chief Engineer**

I/33871/2024  
To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 <sup>st</sup> floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santa Cruz (West), Mumbai-400054	
2.	Director General of Signals	General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105	With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC.
3.	Project In-Charge PNTSL	Project In-charge Rawatbhata Road, Neemuch, PNTSL	Copy for information.

I/33871/2024

**ANNEXURE-I**

CEA Case No.: MP-505			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV D/C Neemuch PS to Mandasaur Transmission Line			Total Length : 118.065 km		
			S.R. Value : 100000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL Letter No: PTCC/WR/2021-22/MP-815 Dated 25.11.2023					
<b><u>Affected Blocks &amp; Telecom Circuits Details</u></b>					
1	Sitamau Exchange to laduna Chauraha	IV less than 430 V			
2	Sitamau Exchange to Saras Niwas				
3	Kayampur Exchange to Bus Stand	0.70	0.0017	37800	64
4	Nahargarh Exchange to Bus Stand	IV less than 430 V			
5	Bilod Exchange to Bus Stand				
6	Sanjeet Exchange to Panchayat				
7	Takwarwad Exchange to Main Road				
8	Budha Exchange to PNB				
9	Manasa Exchange to Rampur Road				
10	Nahargarh Exchange to Neemuch Road				
11	Kukreshwar Exchange to Brahmin Mohalla				
12	Kanjarda Exchange to Bus Stand				
13	Sigholi Exchange to Kota Road				