

I/26466/2023



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

CEA Case No. : UP-601		
PTCC approval for LILO of ckt-II of 220 kV Parichha TPS – Orai at 220 kV Moth Substation [5.714 km]-Regd.		
S. No	Reference No.	Dated
(i)	UPPTCL: 1874/ETD (J)	27.08.2022
(ii)	UPPTCL e-mail	15.02.2023
(iii)	BSNL: DET/PTCC/ND/DV-10125/UP-1085/2022-23	14.11.2022
(iv)	North Central Railway: NCR/S&T/2074/Telecom/PTCC(Part-1)	16.09.2022
(v)	Defense: B/4693/Sigs7(b)/2847	11.07.2022

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

EPR zone for the proposed substation 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
220 kV Moth	137.1	24	0.015	NA	NA	NA	NA

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

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line might be taken under intimation to this office.

Encl.: As above

Chief Engineer

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1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	Annexure-I
2.	GM (S&T)	North Central Railway, HQ's Office (S&T Branch), Ganga Parisar, Subedarganj, Allahabad 211 015	Annexure-II
4.	Ex. Engineer UPPTCL	Electricity Transmission Division Jhansi	Copy for information.

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ANNEXURE-I

CEA Case No.: UP-601			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of ckt-II of 220 kV Parichha TPS – Orai at 220 kV Moth Substation			Total Length : 5.714 km		
			S.R. Value : 20,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL Letter No.: DET/PTCC/ND/DV-10125/UP-1085/2022-23 Dated 14.11.2022					
<u>Affected Blocks & Telecom Circuits Details</u>					
<u>Moth Telephone Exchange</u>					
1	Moth Exchange to Samthar Tiraha	0.2	0.00239	23858	57
2	Samthar Tiraha to Savitri Chauraha	0.95	0.015812	22858	361

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ANNEXURE-II

CEA Case No.: UP-601			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of ckt-II of 220 kV Parichha TPS – Orai at 220 kV Moth Substation			Total Length : 5.714 km		
			S.R. Value : 20,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

North Central Railway Letter: NCR/S&T/2074/Telecom/PTCC(Part-1) Dated 16.09.2022

Affected Blocks & Telecom Circuits Details

1	Nandkhash – Moth	5.15	0.02014	19358	390
2	Moth to Erich Road	Out of parallelism			