

I/25811/2023



**भारत सरकार**  
**Government of India**  
**विद्युत मंत्रालय**  
**Ministry of Power**  
**केन्द्रीय विद्युत प्राधिकरण**  
**Central Electricity Authority**  
**विद्युत संचार विकास प्रभाग**  
**Power Communication Development Division**  
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CEA Case No. : UP-559		
PTCC approval for LILO of 220 kV S/C Jaunpur – Gajokhar Line at 400 kV Machhalishahar S/s -Regd.		
S. No	Reference No.	Dated
(i)	UPPTCL: 586/ETD-II(J) (received on 04.01.2023)	10.05.2022
(ii)	UPPTCL: e-mail	16.01.2023
(iii)	BSNL: DET/PTCC/ND/DV-9904/UP-962/2021-22 (received on 04.01.2023)	20.01.2022
(iv)	Northern Railway: 342-SIG/1/PTCC/2021-22/08/04	11.08.2021
(v)	Defense: B/46937/Sigs 7(b)/2243	24.02.2021

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on Block and Telecom circuits of Northern Railway 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 Northern Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET (NZ), BSNL and DG Signals, MoD vide reference (iii) and (v) respectively have issued No Objection Certificate (NOC).

EPR zone for the proposed substation is mentioned below:

Name of 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 7 kV	d (mts) at 10 kV
400 kV Machhalishahar	242	28	0.27	4013	2573	19	NA

As per the Telecom Details submitted by BSNL vide above reference (iv), no telephone exchange of BSNL is coming in the EPR zone of proposed 400 kV Machhalishahar substation

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

Encl.: As above

**Chief Engineer**

**To,**

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath, New Delhi-110001	
2.	GM (S&T)	Northern Railway, Baroda House, New Delhi	
3.	Executive Engineer	Electricity Transmission Division –II, UPPTCL, Jaunpur	Copy for information.

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ANNEXURE-I

CEA Case No.: UP-559 Name of the Power line: LILO of 220 kV S/C Jaunpur – Gajokhar nine at 400 kV Machhalishahar S/s			Map Scale : 1 cm= 500 m Total Length : 29.638 km S.R. Value : 25,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
<b>Northern Railway Letter No.:</b> 342-SIG/1/PTCC/2021-22/08/04 Dated 11.08.2021					
<u><b>Affected Blocks &amp; Telecom Circuits Details</b></u>					
1	Zafrabad R/S to Salkhapur R/S	4.7	0.0065	7846	51
2	Salkhapur R/S to Shudnipur R/S	1.9	0.0009	9527	9
3	Shudnipur R/S to Mariahu R/S	2.1	0.0003	11128	3
4	Bakhsha R/S to Jaunpur City R/S	3.15	0.0004	11315	5
5	Jaunpur City R/S – Zafrabad R/S	2.45	0.0004	9826	4