



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/UP-522/ 129-132

Date: 19.02.2020

DET (PTCC), Northern Zone,
Bharat Sanchar Nigam Limited (BSNL),
O/o PGM(N), Inspection Circle,
CTS Compound, Netaji Nagar,
New Delhi - 110023

Subject: Induced Voltage calculation in respect of PTCC proposal of LILO of Circuit -I (Loop In) of 400 kV D/C PGCIL (Lucknow) - Unnao at 400 kV Jehata S/S

- Ref:** (i) Executive Engineer, UPPTCL letter no. 2355/ETD(I) L/400 kV Line Jehta dated 23.11.2019
(ii) BSNL letter no. DET/PTCC/ND/DV-9655/UP-827/2019-2020 dated 14.01.2020
(iii) North Eastern Railway letter no. N/242/0/(Tele)PTCC-Pt.-II/991 dated 11.02.2020
(iv) Northern Railway letter no. 342-SIG/1/PTCC/2019-20/01/01 dated 10.01.2020

The PTCC case submitted vide reference (i) has been examined. BSNL vide above Ref. (ii) has accorded NOC for the line and North Eastern Railway Vide reference (iii) has accorded NOC. The low frequency induction on Northern Railway Telecommunication circuits as per details furnished vide above references (iv) has been examined. The Soil Resistivity value has been taken as 25,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex. The screening factors as applicable have been considered.

Telecommunication details from Defense are pending and the power authority has shown urgency for charging the line. In view of this, you may issue provisional PTCC route approval.

Encl.: As above

Upendra Kumar
19.2.2020

(Upendra Kumar)
Chief Engineer

MIC

Copy to:

- 1) GM(S&T), Northern Railway, Headquarter Office, Baroda House, New Delhi.
- 2) GM(S&T), North Eastern Railway, State Entry Road, Gorakhpur.(only cover letter)
- 3) Executive Engineer, Electricity Transmission Division-I, UPPTCL, Room No. 115-120, Pareshan Bhawan, Vibhuti Khand-II, Near Mantri Awas, Gomti Nagar, Lucknow - 226010.

ANNEXURE

Case No.: UP - 522

**Name of the Power line: LILO of Circuit -I (Loop In) of 400
kV D/C PGCIL (Lucknow) - Unnao at 400 kV Jehata S/S**

Map Scale : 1cm=500mts
Total Length : 16.972 Km.
S.R. Value : 25,000 Ohms-cm


S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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NORTHERN RAILWAY

Ref. No: 342-SIG/1/PTCC/2019-20/01/01 DATED: 10-01-2020

Affected Blocks & Telcom Circuits Details

		Out side IV consideration zone			
1	Dilawar - Malihabad				
2	Malihabad - Kakori				0
3	Kakori - Alam Nagar	4	0.0008	14200	11
		1	0.0001	14500	1


 19/2/2020
 मुख्य अभियंता / Chief Engineer
 केन्द्रीय विद्युत प्रणालियाँ / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi