

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority पावर कम्युनिकेशन डवलप्मेंट प्रभाग

Power Communication Development Division

No.:CEA/PCD/PTCC/UP-490/787-789

Date: 05.07.2019

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

Subject:

Induced Voltage Calculation in respect of PTCC proposal for LILO of one circuit of

220 kV DC Lalitpur TPS - Dunara Transmission Line at Babina 220 kV SS

Reference:

(i) BSNL letter no. DET/PTCC/ND/DV-9443/UP-697/2019-2020 dated 25.06.2019

(ii) North Central Railway letter no. एन सी आर/एस एंड टी/2074/टेलिकॉम/पी.टी.सी.सी. (पार्ट-1)

dated 11.06.2019

Sir,

The instant PTCC proposal has been examined. Low frequency induction on Block & Telecom circuits of North Central Railway with respect to details furnished vide above reference has been computed. The Soil Resistivity (SR) value has been taken as 25,000 Ohm-cm. The voltages likely to be induced on paralleling Block & Telecom circuits of North Central Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I. The screening factors, as applicable, have been considered. Vide ref. (i) above. BSNL have issued No Objection Certificate (NOC).

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

Encl.: As above

(Naresh Bhandari)
Chief Engineer

Copy to:

- 1. ASTE, North Central Railway, HQ's Office (S&T Branch), Ganga Parisar, Subedarganj, Allahabad, Uttar Pradesh 211015
- 2. Executive Engineer, Electricity Transmission Division Jhansi, UP Power Transmission Corporation Limited, 132 kV S/S Hasari, Jhansi, UP 284135

MIC

ANNEXURE - I

Name of the Power line: LILO of one circuit of 220 kV DC

Case No.: UP-490

Lalitpur TPS – Dunara Transmission Line at Babina 220 kV SS

Map Scale : 1cm=500mts
Total Length : 7.278 km

Soil Resistivity: 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.

-	North Central Railway letter no. एन सी आर/एस एंड टी/2074/टेलिकॉम/पी.टी.सी.सी. (पार्ट-1) dated 11.06.2019							
1	Khajraha – Babina	0.9	0.0002	8000	2			
2	Babina – Burhpura	OUT OF PARALLELISM			0			
		OUTSIDE IV CONSIDERATION			0			
3	Burhpura - Basai	ZONE						

नरेश भंडारी/NARESH BHANDARI मुख्य अभियन्ता/Chief Engineer कन्द्रीय विद्युत प्राधिकरण/C.E.A. बिद्युत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delhi-66