

#### भारत सरकार

## Government of India

विद्युत मंत्रालय

### Ministry of Power केन्द्रीय विद्युत प्राधिकरण

# Central Electricity Authority पावर कम्युनिकेशन डवलप्सेंट प्रभाग

## **Power Communication Development Division**

No. CEA/PCD/ PTCC/RAJ-616/ 399 - 40/

Date:08.04.2019

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 220 KV D/C Gajner – Chaatargarh line

Ref:

- (i) BSNL letter no. DET/PTCC/ND/DV-9411/Raj-1204/2018-19 dated 06.03.2019
- (ii) Northern Western Railway letter no. SG/158/NWR/PTCC/720 dated 14.11.2018
- (iii) Defense letter no. B/46937/Sigs 7(b)/1346/ dated 04.01.2019

Sir,

The instant PTCC proposal has been examined. BSNL has accorded NOC vide above Ref.(i) for the above line. The low frequency induction on Railway Telecommunication circuits as per details furnished vide above cited references (ii) has been examined. The Soil Resistivity value has been taken as 5000 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. Defense has accorded NOC vide above Ref.(iii) for the line.

Taking above into consideration, kindly take necessary action regarding issue of PTCC route approval.

Encl.: As above

(Naresh Bhandari) Chief Engineer

### Copy to:

- 1 Dy. CSTE, North Western Railway, Head Quarter Office, Room No. 136, First Floor, Near Jawahar Circle, Jaipur 302017. (Rajasthan)
- 2 Executive Engineer (PTCC), RRVPNL, First Floor, Room no. 129, Vidyut Bhawan, Jyoti Nagar, Jaipur 302005

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**ANNEXURE** Map Scale : 1cm=500mts Total Length: 83.095 Km. Case No.: RAJ-616 S.R, Value : 5,000 Ohms-cm Name of the Power line 220 KV D/C Gajner-Chaatagarh line Effective Length of Mutual Fault I.V **Parallelism** Coupling current in S.No. Telecom. Details in Km. in Ohms. in Amps. Volts. NORTH WESTERN RAILWAY Ref. No: SG / 158 / NWR / PTCC / 720 DATED: 14-11-2018 Affected Blocks & Telcom Circuits Details 1 Nal - Gajner 0.5 0.0001 10000 2 Gajner - Kolayat -----out side iv consideration zone-0 मुख्य अभियन्ता/Chief Engineer विश्व विज्ञात प्राणिकरण/C.E.A. नई दिल्ली/New Delhi-66