



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/RAJ-608) 746-48

Date:24.06.2019

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 LILO of 440 kV D/C(Quad)
Bhadla (RVPNL) – Bikaner (RVPNL) Transmission Line at Bikaner (PGCIL) S/S

Ref: (i) BSNL letter no. DET/PTCC/ND/DV-9424/Raj-1212/2019-20/ dated 29.04.2019
(ii) Northern Western Railway letter no. SG/158/NWR/PTCC/685 dated 30.01.2018

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) respectively has been examined. The Soil Resistivity value has been taken as 12,500 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I & II respectively. The screening factors as applicable have been considered.

Telecom Details from Defence are still awaited and Power Authority has shown urgency for charging the line. Taking above into consideration, kindly take necessary action regarding issue of Provisional 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) (With Annex – II only)
- 2 Chief Manager, PGCIL, 765/400/220 kV Sub-Station (Const.) 6 B-41, Jai Narayan Vyas Colony, Bikaner – 334001 (Rajasthan)

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ANNEXURE - I

Case No.: RAJ-608

Name of the Power line: LILO of 400 KV D/C (Quad) Bhadla (RVPNL) –Bikaner (RVPNL) Tr Line at Bikaner S/S (PGCIL)

Map Scale : 1cm=500mts

Total Length : 9.153Km.

S.R. Value : 12,500 Ohms-cm

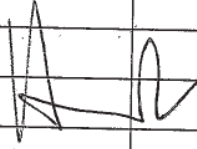
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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BSNL DETAIL

Ref. No: DET / PTCC / ND / DV-9424 / RAJ-1212 / 2019- 2020 DATED: 29-04-2019

Affected Blocks & Telcom Circuits Details

1	Jamsher T/Exch to main Village area & upto Jamsher Railway Station 200 Pair UG cable)	} _____out of //sm _____			
2	Jamsher T/Exch to main Village area & upto Jamsher Railway Station (50 pair UG cable)				

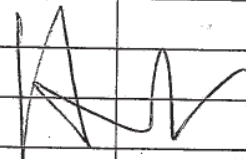

 नाresh भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE - II

Case No.: RAJ-608 Name of the Power line: LILO of 400 KV D/C (Quad) Bhadla (RVPNL) -Bikaner (RVPNL) Tr Line at Bikaner S/S (PGCIL)		Map Scale : 1cm=500mts Total Length : 9.153Km. S.R. Value : 12,500 Ohms-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

NORTH WESTERN RAILWAY
 Ref. No: SG/158/NWR/PTCC/685 DATED: 30-01-2018

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
1	Lalgarh- Kanasar	-----Out of //sm-----			0
2	Kanasar - Jamsar	8.0	0.0083	9000	75
3	Jamsar - Jagdeowala	-----Out of //sm-----			0


 नरेश भंडारी/NAFESH BHANDARI
 मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत अधिकरण/C.E.A.
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