

I/30057/2023



सत्यमेव जयते

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भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

| CEA Case No. : DL-33 | | |
|---|---|--------------|
| Induced Voltage calculation for PTCC proposal of 220 kV 1x1200 sq. mm UG XLPE cable from DTL Lodhi Road S/S to DTL Electric lane S/S [Length- 5.5 km] -Regd. | | |
| S. No | Reference No. | Dated |
| (i) | DTL: F.DTL/2012/Manager (T) PII-A2/23-24/Opr.(Proj)/F-23/49 | 05.06.2023 |
| (ii) | DTL: F.DTL/210/AGM(T) PII-A/23-24/Opr.(Proj)/F-29/49 | 17.08.2023 |
| (iii) | DTL: e-Mail | 30.08.2023 |
| (iv) | BSNL: DET/PTCC/ND/DV-10206/ND-240/2023-24 | 10.08.2023 |
| (v) | Northern Railway: 342-SIG/1/PTCC/2023-24/06/06 | 27.06.2023 |
| (vi) | DMRC: DMRC/Elect/Ph4/Plg-091/PTCC-DTL (e-51933) | 14.07.2023 |

The PTCC proposal submitted vide reference (i), (ii) and (iii) has been examined. The LF induction on Block and Telecom circuits of Northern Railway and DMRC with respect to details furnished vide above reference (v) & (vi) have been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of Northern Railway and DMRC under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. DET, PTCC NZ, BSNL has issued NOC vide above reference (iv). The screening factors as applicable have been considered.

Telecom details from DG Signals, MoD is pending.

DTL vide reference (ii) above has shown urgency for charging the subject transmission line and requested for provisional PTCC approval citing the completion of work in all respect and the crucial role of transmission line to secure uninterrupted power supply to VVIP areas of NDMC during G20 summit.

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

Encl.: As above

Director

I/30057/2023
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, HQ's Office, Baroda House, New Delhi | |
| 3. | Sr. DGM/ Electrical (Planning) | Delhi Metro Rail Corporation, office of S&T Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi | |
| 4. | Director General of Signals | General Staff Branch, Integrated HQ, MoD (army), Sena Bhawan, DHQ, PO, New Delhi- 110 105 | With a request to provide details of Telecom assets/ NOC at the earliest for issuance of final RAC. |
| 5. | Sr. Manager (T), Projects-II-A2 | DTL, Room No. R-5, Shaktideep Bldg., Jhandewalan Extn., New Delhi – 110 002 | For information |

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ANNEXURE-I

| CEA Case No.: DL-33 | | | Map Scale : 1 cm= 500 m | | |
|---|------------------|------------------------------|---------------------------|----------------------------------|---------------|
| Name of the Power line: 220 kV 1x1200 sq. mm UG XLPE cable from DTL Lodhi Road S/S to DTL Electric lane substation. | | | Total Length : 5.5 km | | |
| | | | S.R. Value : 2,000 Ohm-cm | | |
| S.No. | Telecom. Details | Length of Parallelism in Km. | Mutual Coupling in Ohms. | Effective Fault current in Amps. | I.V in Volts. |

Northern Railway: 342-SIG/1/PTCC/2023-24/06/06 Dated 27.06.2023

Affected Blocks & Telecom Circuits Details

| | | | | | |
|----|---|-----|--------------------|-------|---|
| 1 | Delhi R/S to Sadar Bazar R/S | | Out of parallelism | | |
| 2 | Sadar Bazar R/S to Delhi Sarai Rohilla R/S | | Out of parallelism | | |
| 3 | Delhi Sarai Rohilla R/S to Patel Nagar R/S | | Out of parallelism | | |
| 4 | Delhi R/S to Sabzi Mandi R/S | | Out of parallelism | | |
| 5 | Sabzi Mandi R/S to Delhi Azadpur R/S | | Out of parallelism | | |
| 6 | Delhi R/S to Delhi Shahdara R/S | | Out of parallelism | | |
| 7 | Hazrat Nizamuddin R/S to Anand Vihar R/S | | Out of parallelism | | |
| 8 | Tughlakabad R/s to Okhla R/S | | Out of parallelism | | |
| 9 | Okhla R/S to Hazrat Nizamuddin R/S | | Out of parallelism | | |
| 10 | Hazrat Nizamuddin R/S to Pragati Maidan R/S | | Out of parallelism | | |
| 11 | Pragati Maidan R/S to Tilak Bridge R/S | | Out of parallelism | | |
| 12 | Tilak Bridge R/S to Shivaji Bridge R/S | | Out of parallelism | | |
| 13 | Shivaji Bridge R/S to New Delhi R/S | | Out of parallelism | | |
| 14 | New Delhi R/S to Sadar Bazar R/S | | Out of parallelism | | |
| 15 | Sadar Bazar R/S to Delhi R/S | | Out of parallelism | | |
| 16 | Delhi R/S to Kishanganj R/S | | Out of parallelism | | |
| 17 | Kishanganj R/S to Daya Basti R/S | | Out of parallelism | | |
| 18 | Daya Basti R/S to Shakurbasti R/S | | Out of parallelism | | |
| 19 | Hazrat Nizamuddin R/S to Delhi Safdarjung | 0.7 | 0.0004 | 21450 | 9 |
| 20 | Delhi Safdarjung to Brar Square R/S | | Out of parallelism | | |
| 21 | Brar Square R/S to Patel Nagar R/S | | Out of parallelism | | |
| 22 | Patel Nagar R/S to Shakurbasti R/S | | Out of parallelism | | |

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| | | | S.R. Value : 2,000 Ohm-cm | | |
| S.No. | Telecom. Details | Length of Parallelism in Km. | Mutual Coupling in Ohms. | Effective Fault current in Amps. | I.V in Volts. |
| DMRC: DMRC/Elect/Ph4/Plg-091/PTCC-DTL (e-51933) Dated 14.07.2023 | | | | | |
| <u>Affected Blocks & Telecom Circuits Details</u> | | | | | |
| 1 | Marked Communication Cable by Signaling wing of DMRC | 3.5 | 0.004 | 18450 | 74 |