



सत्यमेव जयते

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

CEA Case No. : MRA-1229		
Induced Voltage (IV) calculation for LILO of 220 kV D/C Apta- Kalwa/Taloja line at Navi Mumbai GIS [Length – 1.34 km] – Regd.		
S. No	Reference No.	Dated
(i)	MUML: MUML/PTCC/2023-2024/779	17.10.2023
(ii)	Email: Sterlite Power Transmission Ltd	03.05.2024
(iii)	BSNL: IC/MBI/PTCC/MRA-2615/04	04.04.2024
(iv)	Central Railway: N.153/PTCC/220kV/MAH-855	14.03.2024
(v)	Defense: B/46937/Sigs7(b)/3578	08.12.2023

The PTCC proposal submitted vide reference (i) and (ii) has been examined. The LF induction on Block and Telecom circuits of BSNL & Central Railway with respect to details furnished vide above reference (iii) & (iv) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of BSNL & Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I & Annexure-II respectively. The screening factors as applicable have been considered. DG Signals, MoD has issued No Objection Certificate (NOC) vide reference (iv).

As all sub stations are existing so EPR calculation is not warranted. In view of the above, it is requested that PTCC route approval may be issued for the subject transmission line under intimation to this office.

Encl.: As above

Chief Engineer

To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle, 1 st floor, D- wing, BSNL Admin Bldg., Junu Tara Road, Santacruz (West), Mumbai-400054	
2.	GM (S&T), Central Railway	O/o Pr. Chief S&T Engineer Central Railway Mumbai	
3.	Project Head	DLF Cyber Park, Tower-B, 9 th Floor, Udyog Vihar Phase-III, Secotr-20, Gurugrm-122008	

ANNEXURE-I

CEA Case No.: MRA-1229			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV D/C Apta- Kalwa/Taloja line at Navi Mumbai GIS			Total Length: 1.34 km		
			S.R. Value : 50000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
BSNL Letter No: IC/MBI/PTCC/MRA-2615/04			Dated 04.04.2024		
1	Old Panvel		IV less than 430V		
2	New Panvel		IV less than 430V		
3	Kalamboli		IV less than 430V		
4	Taloja		IV less than 430V		
5	Kamothe		IV less than 430V		
6	Kharghar		IV less than 430V		
7	ONGC		IV less than 430V		
8	GST RSU		IV less than 430V		

ANNEXURE-II

CEA Case No.: MRA-1229			Map Scale : 1 cm= 500 m		
Name of the Power line: LILO of 220 kV D/C Apta- Kalwa/Taloja line at Navi Mumbai GIS			Total Length: 1.34 km		
			S.R. Value : 50000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
Central Railway Letter No: N.153/PTCC/220kV/MAH-855			Dated 14.03.2024		
1	Kalamboli-Tajole Panchnand	Out of Parallelism			
2	Panvel-Chikhle	0.251	0.0002	27062	5
3	Panvel-Kalamboli	0.947	0.0039	26584	104
4	Panvel-SMTN	0.564	0.0005	27062	14
5	Panvel-Kharghar	0.25	0.0004	27686	11
6	Panvel-Dapoli	0.291	0.0002	27340	5