



सत्यमेव जयते

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/MRA-1042/2502-2505

Date: 29/11/2018

Divisional Engineer (PTCC), Inspection Circle,
Bharat Sanchar Nigam Limited (BSNL),
3rd Floor, D-Wing, BSNL Admin Building
Juhu Tara Road, Santacruz (West)
Mumbai (Maharashtra)-400054

Subject: IV calculation for PTCC Route Approval for upgradation of existing 220kV Kalwa -Borivali line from Double circuit to Multi circuit.

Ref: i) BSNL Letter No. IC/MBI/PTCC/MRA-2109, Dated-02/08/2018.
ii) Western railway, Dy.CSTE/Tele /CCG, Letter No. SG.158/28/9/295, Dated 09/07/2014.
iii) Central Railway, AESTE/TELE/HQ, Ltr.No. 153/PTCC/220kV/MAH-418 Dated 20/06/2013.

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii), (iii) respectively has been examined. The Average Soil Resistivity value has been taken as 20,000 Ohms-cm, as per data submitted by Power Authority i.e MSETCL. Voltages likely to be induced on paralleling BSNL and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I and II, III respectively. The screening factors as applicable have been considered.

As the power Authority had submitted the instant case before the decision of consideration of Defense, the requirement Defense Telecom details may be waived.

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

Encl: As above

Yours faithfully,

M/C

Naresh Bhandari
(Naresh Bhandari)
Chief Engineer

Copy to:

1. AESTE, Central Railway, Headquarters Office (S&T Branch) 3rd Floor, Annex Building, CST Mumbai-400001 (Annexure-II only)
2. GM (S&T), Office of CSTE, Western Railway, S&T Dept, 5th Floor, Station Building, Churchgate, Mumbai-400020 (Annexure-III only)
3. The Superintending Engineer (Schemes & Coordination), Prakashganga, Plot No. C- 19, E Block, Bandra (East), Mumbai-400051.

ANNEXURE - I

Case No.: MRA-1042					
Name of the Power Line : <u>RENOVATION/UPGRADATION OF EXISTING KALWA-BORIWALI LINE</u>		मानचित्र स्केल : 1 सेमी=500 मीटर कुल लम्बाई : 17.0 कि.मी. एस. आर. मान : 20,000 ओम-सेमी			
क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	म्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में

BSNL DETAIL
Ref. No. IC/MBI/PTCC/MRA-2109 Dt, 02.08, 2018

1	Kopri T.E. to Nalanda public school (108) - 1000 pair-U/G cab
2	Kopri T.E. to Millenium Park (107) - 1000 pair-U/G cable
3	Kopri T.E. to Maitri Hotel (0212) - 800 pair-U/G cable
4	Kopri T.E. to Fire brigade (0287) - 1000 pair-U/G Cab.
5	Kopri T.E. to chede Naka (0206) - 1000 pair-U/G cab


- IV less than 430V

1	Navghar T.E. to MHADA colony (0203) - 2000 pair-U/G Ca
2	Navghar T.E. to Sainath hight (0905) - 2000 pair-U/G cab
3	Navghar T.E. to Sainath park (1005) - 2000 pair-U/G cab
4	Navghar T.E. to Nanpada (0405) - 2000 pair-U/G cab

- IV less than 430V

1	MULUND T.E. TO OPP RUNWAY GREENS (1010) - 2000 pair-U/G cable
2	MULUND T.E. TO NEAR SONAPUR SIGNAL (0906) - 2000 pair-U/G cable
3	MULUND T.E. TO RAJA INDUSTRIAL (1012) - 2000 pair-U/G cable
4	MULUND T.E. TO JAIN MANDIR RD (1008) - 2000 pair-U/G cable
5	MULUND T.E. TO JAIN MANDIR RD (1015) - 2000 pair-U/G cable
6	MULUND T.E. TO JAIN MANDIR RD (1004) - 2000 pair-U/G cable
7	MULUND T.E. TO JAIN MANDIR RD (1003) - 2000 pair-U/G cable
8	MULUND T.E. TO JAIN MANDIR RD (1007) - 2000 pair-U/G cable
9	MULUND T.E. TO JAIN MANDIR RD (1011) - 2000 pair-U/G cable
10	MULUND T.E. TO SALAR GARDEN (0405) - 2000 pair-U/G cable

- IV less than 430V


 जे.के. शंकराजी / J. K. Shankaraji
 मुख्य अभियंता / Chief Engineer
 क्षेत्रीय विद्युत अभियंता / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE - I

Case No.: MRA-1042					
Name of the Power Line : <u>RENOVATION/UPGRADATION OF EXISTING KALWA-BORIWALI LINE</u>		मानचित्र स्केल : 1 सेमी=500 मीटर कुल लम्बाई : 17.0 कि.मी. एस. आर. मान : 20,000 ओम-सेमी			
क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	न्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में

BSNL DETAIL
Ref. No. IC/MBI/PTCC/MRA-2109 Dt. 02.08.2018

MULUND T.E TO HIGHEST QUARTER GGS RD (0814) NEW - 2000 pair - U/G Cable	
MULUND T.E TO OPP MASJID GGS RD (0814) OLD - 27200 pair - U/G Cable	
MULUND T.E TO HIGHLAND PARK GGS RD (0818) - 2000	
MULUND T.E TO JAY SHASTRI NAGAR GGS RD (0810) -	
MULUND T.E TO NIRMAL LIFESTYLE COMPLEX (0833) -	
MULUND T.E TO NIRMAL LIFESTYLE COMPLEX (0833) -	
MULUND T.E TO LRSRD NIRMAL LIFESTYLE MALL (0833) -	
MULUND T.E TO HALLMARK LBS RD (0824) -	
MULUND T.E TO OPP GUPTA PETROL PUMP (0811) -	

- IV less than 430V.

Bhandup (E) T.E. to Purnima Coners. (0606) 2000 pair U/G cab	
Bhandup (E) T.E. to Datar Colony (0306) - 2000 pair U/G cab	
Bhandup (E) T.E. to Nahur Ris. (0409) 2000 Pair U/G cab	
Bhandup (E) T.E. to	

- IV less than 430V

Bhandup (W) T.E. to Khindipada (1107) 2000 Pair U/G cab	
Bhandup (W) T.E. to Somapur signal (1102) 2000 pair U/G cab	
Bhandup (W) T.E. to Quarry Road (0301) 2000 pair U/G cab	
Bhandup (W) T.E. to Hanuman Nagar (0305) 2000 pair U/G cab	

- IV less than 430V.

1 DAHISAR T.E TO DAHISAR EXCHANGE (0101) - 800 pair - U/G Cable	
2 DAHISAR T.E TO GOKULANAND (0401) - 800 pair - U/G Cable	
3 DAHISAR T.E TO OPP GOKULANAND (0501) - 800 pair - U/G Cable	
4 DAHISAR T.E TO NEAR ROYAL TRADE CENTRE (0604) - 800 pair - U/G Cable	
5 DAHISAR T.E TO NEAR ROYAL TRADE CENTRE (0605) - 800 pair - U/G Cable	

- Out of parallelism.

Handwritten signature

Simpoli T.E to mangalkhump. (0402) - 2000 pair U/G cable	
Simpoli T.E to Anandkhanda (0601) - 200 pair U/G cab	

- Out of parallelism

नरेश भंडारी / NARISH BHANDARI
मुख्य अभियंता / Chief Engineer
केन्द्रीय विद्युत निगम / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi-65

ANNEXURE - I

Case No.: MRA-1042

Name of the Power Line :
RENOVATION/UPGRADATION OF EXISTING KALWA-BORIWALI
LINE

मानचित्र स्केल : 1 सेमी=500 मीटर
कुल लम्बाई : 17.0 कि.मी.
एस. आर. मान : 20,000 ओम-सेमी

क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	न्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में
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BSNL DETAIL

Ref. No. IC/MBI/PTCC/MRA-2109 Dt, 02.08.2018

National park T.E to National park (1901) - 2000 pair U/G cable.
National park T.E to National park (1902) - 2000 pair U/G cable.
National park T.E to National park (1903) - 2000 pair U/G cable.
Santa Nagar T.E to Mahindra Co. (0701) - 2000 pair U/G cable.
Santa Nagar T.E to Mahindra Co. (0101) - 2000 pair U/G cable.
Santa Nagar T.E to Mahindra Co. (0705) - 2000 pair U/G cable.
Santa Nagar T.E to Times of India T.E. - 2000 pair U/G cable.

- Out of 11 km.
- IV less than 430V.

Kalpataru RSU to Kalpataru tower (0905) - 2000 pair U/G cable.
Kalpataru RSU to Kalpataru garden (0301) - 2000 pair U/G cable.

- IV less than 430V.

BHAYANDAR T.E TO BHAYANDAR FATAK EAST (0701) - 2000 pair U/G cable.
BHAYANDAR T.E TO BHAYANDAR FATAK EAST (0909) - 2000 pair - U/G cable.
BHAYANDAR T.E TO SILENT PARK (1601) - 2000 pair - U/G Cable.
BHAYANDAR T.E TO SHANTI BUNGALOW (1602) - 2000 pair - U/G cable.
BHAYANDAR T.E TO BANDARVAZI (1401) - 2000 pair - U/G cable.
BHAYANDAR T.E TO JESAL PARK (1405) - 2000 pair - U/G Cable.
BHAYANDAR T.E TO KAPOOR TOWER (1509) - 2000 pair - U/G Cable.
BHAYANDAR T.E TO BHAYANDAR EXCHANGE-2000 pair - U/G Cable (010)
BHAYANDAR T.E TO JAIN MAHOIR - 2000 pair - U/G Cable (0103)
BHAYANDAR T.E TO UNION BANK (0207) - 2000 pair - U/G Cable.
BHAYANDAR T.E TO BHAYANDAR POLICE STATION (0403) - 2000 pair - U/G cable.
BHAYANDAR T.E TO MURDHA (0501) - 2000 pair - U/G Cable.
BHAYANDAR T.E TO RAI (0502) - 2000 pair - U/G cable.
BHAYANDAR T.E TO MORVA (0503) - 2000 pair - U/G Cable.

- Out of IV consideration. Low.

(Signature)
मंसि बंसरी/NAHES/CHANDARI
मुख्य अभियंता/Chief Engineer
केन्द्रीय विद्युत आयोग/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi-65

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Case No.: MRA-1042					
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<u>BSNL DETAIL</u>					
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Borivali T.E. to Link R/B Devidas Rc stand. (2209) - 2000 pair U/G Cable
Borivali T.E. to Devidas Road (2208) - 2000 pair U/G cable
Borivali T.E. to Saisant Bld service Rd. WE# (0102) - 2000 pair U/G cable
Borivali T.E. to Honam plaza m4 Rd (0211) - 2000 pair U/G cable
Borivali T.E. to Near omesh link Rd (1806) - 2000 pair U/G cable
Borivali T.E. to PPF silver line build in colony (1903) - 2000 pair U/G cable


- Out of parallelism

MIRA ROAD T.E TO MANI PALACE (0804) - 2000 pair - U/G Cable
MIRA ROAD T.E TO OSWAL PARADISE (0807) - 2000 pair - U/G Cable
MIRA ROAD T.E TO SILVER PARK (0906) - 2000 pair - U/G Cable
MIRA ROAD T.E TO CHANDRESH ALU30 (0905) - 2000 pair - U/G Cable
MIRA ROAD T.E TO SHANTI NIKETAN BLDG (1201) - 2000 pair - U/G Cable
MIRA ROAD T.E TO MAHESH INDUSTRIAL ESTATE (1202) - 2000 pair - U/G Cable
MIRA ROAD T.E TO NATASHA APARTMENT (1305) - 2000 pair - U/G Cable

- Out of parallelism

Majethana T.E to Rajalogram (0507) 2000 pair U/G cable
Majethana T.E to Kashiamba Palace (0401) 2000 pair U/G cable
Majethana T.E to Ganpatnagar (0100) 2000 pair U/G cable

- Out of parallelism


 नरेश भंडारी / NARISH BHANDARI
 मुख्य अभियंता / Chief Engineer
 क्षेत्रीय विद्युत आयोग / C.E.A.
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