



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/ORS-215 / 616-18

Date: 28.05.2019

DET (PTCC), Eastern Zone,
Inspection & QA Circle, BSNL
Q.A. Bhawan, EP-GP Block, Sector-V,
Salt Lake, Kolkata – 700091

Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV D/C line from OPTCL Grid, Narendrapur to MRSS of Tata Steel Ltd, Gopalpur


Reference: (i) BSNL letter no. DE/PTCC/ER/EOR090420190071 dated 20.04.2019
(ii) East Coast Railway letter no. ECoR/S&T/BBS/Tele/PTCC/57/227 dated 22.05.2019
(iii) Defense letter no. B/46937/Sigs 7(b)/1396 dated 01.03.2019

Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom Circuits of East Coast Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 5,000 ohm-cm, as intimated by the power authority. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom Circuits of East Coast Railway under single line to ground fault condition have been computed and are enclosed as Annex – I and II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – III).

Taking above into consideration, kindly take necessary action for PTCC route approval.

Encl.: As above


(Naresh Bhandari)
Chief Engineer

Copy to:

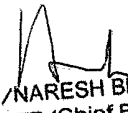
- (i) PCSTE, East Coast Railway, Ground Floor, North Block, Rail Sadan, Bhubaneswar-17 (Annex – II only)
- (ii) Head-Project, Tata Steel Limited, Project Gopalpur Gajapati Nagar Main Lane, Berhampur, Dist. Ganjam, Odisha - 760010

M/C

ANNEXURE - I

Case No.: ORS-215		Map Scale : 1cm=500mts			
Name of the Power line: 220 kV D/C line from OPTCL Grid, Narendrapur to MRSS of Tata Steel Ltd, Gopalpur		Total Length : 8.22 Km.			
		Soil Resistivity : 5000 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 Telecom details					
Letter no. DE/PTCC/ER/EOR090420190071 dated 20.04.2019					
1	Narendrapur T.E.				
	T.E. - A (Pillar) (Kushasthal chowk)				
	A- B (Pillar) (Jaganathpur jn)				
	B- C (Bhavi Narayanpur)				
	B- P (Raghunathpur)				
	P-E (Defence Colony)				
	P-D (Anantpur)				


 नरेश 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.: ORS-215		Map Scale : 1cm=500mts			
Name of the Power line: 220 kV D/C line from OPTCL Grid, Narendrapur to MRSS of Tata Steel Ltd, Gopalpur		Total Length : 8.22 Km.			
		Soil Resistivity : 5000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

East Coast Railway letter no. ECoR/S&T/BBS/Tele/PTCC/57/227 dated 22.05.2019					
1	Ganjam (GAM) – Chatrapur (CAP)	OUT OF IV CALCULATION CONSIDERATION ZONE			0
2	Chatrapur (CAP) – Jagannathpur (JNP)	6.1	0.0073	9500	69
3	Jagannathpur (JNP) – Brahmapur (BAM)	1.0	0.0014	10000	14


 नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
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OR#-215

Tele : 23019746

Directorate General of Signals
Signals 7
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Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011

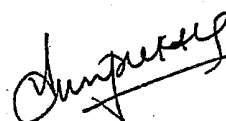
B/46937/Sigs 7(b)/1396/

01 Mar 2019

✓ Head, Project-TSL
Tata Steel Limited
Project Gopalpur Gajapati Nagar Main Lane
Berhampur-760010
Dist. Ganjam Odisha India

**APPROVAL OF PTCC FOR THE 220KV D/C LINE FROM OPTCL GRID SUB STATION,
NARENDRAPUR TO MRSS OF TATA STEEL LTD, GOPALPUR**

1. Ref your letter No. TSL-PTCC/01/06 dt 20 Nov 2018 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.



(A Rawat)
Maj
GSO 1 (Comn)
for SO-in-C

Enclosures : As above

Copy to :-

The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi - 110016

for information.