



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/CHH-71 /205-207

Date :15.02.2019

DET (PTCC), Inspection Circle,  
Bharat Sanchar Nigam Limited,  
3<sup>rd</sup> Floor, D-Wing, BSNL Admin Bldg.  
Juhu Tara Road, Santacruz (West),  
Mumbai-400054

**Subject:** PTCC Route Approval for 400 kV D/C Raita(Raipur)-Jagadapur Transmission Line.

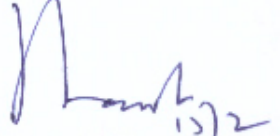
**Ref:** (i) BSNL letter no. TM/PTCC/RA-1/CG-104 Dated: 16.05.2018  
(ii) South East Central Railway ltr no. SECR/S&T/PTCC/CG/1075 Dated: 22.08.2017  
(iii) East Coast Railway Ltr. No.ECoR/S&T/BBS/Tele/PTCC/57/Part-III/1274 Dated: 15/11/2018  
(iv) Defence letter no. B/46937/Sigs 7(B)/343 Dated: 06.10.2016

Sir,

The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block and Telecom circuits of Railway with respect to details furnished vide above reference (i) and (ii) respectively has been computed. The average Soil Resistivity (SR) value has been taken as 27,500 Ohm Cm, as intimated by the Power Authority. The voltages likely to be induced on paralleling telecom cables of BSNL and telecom circuits of Railway under Single Line to Ground fault condition have been computed and are enclosed at Annex-I & II respectively. The screening factors, as applicable, have been considered. Vide Ref. (iii)&(iv) above, East Coast Railway and Defense authority has accorded No Objection Certificate (NOC) (copy enclosed at Annex-III & IV).

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

**Encl.:** As above

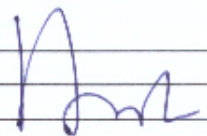
  
(Naresh Bhandari)  
Chief Engineer

**Copy to:**

1. Dy. CSTE/Tele/HQ, South East Central Railway, O/o Chief signal and Telecom Engineer, 2<sup>nd</sup> Floor, SECR Zonal Head Quarter Building, Bilaspur-495004 (Annexure-II only)
2. Chief Engineer(C&P), CSPTCL, 3<sup>rd</sup> Floor, SLDC Building, Danganiya, Raipur, Chhattisgarh-492 013.

## ANNEXURE - I

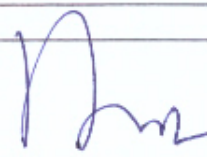
<b>Case No.: CHH-71</b>					
<b>Name of the Power Line: 400 KV D/C Raita (Raipur) – Jagdalpur transmission line.</b>		मानचित्र स्केल : 1 सेमी=500 मीटर कुल लम्बाई : 329 कि.मी. एस. आर. मान : 27,500 ओम-सेमी			
क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	म्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में

<b>BSNL DETAIL</b>		Ref. No: TM/PTCC/RA-1/CG-104		DATED: 16.05.2018	
<b>Route Map (1) of (2)</b>					
<b>(I)</b>	<b>Tarpongi T/ Exchange</b>				
	Location (A) to Location (B) — 50 Pair	Out of parallelism			
	Location (A) to Location (C) — 50 Pair				
	Location (A) to Location (D) — 50 Pair				
	Location (A) to Location (E) — 50 Pair				
<b>(II)</b>	<b>Dharsivva T/ Exchnge (RSU)</b>				
	Location (A) to Location (B) — 100 Pair	Out of parallelism			
	Location (A) to Location (C) — 100 Pair				
<b>(III)</b>	<b>Siliyari T/ Exchnge</b>				
	Location (A) to Location (B) — 100 Pair	IV less than 430 Volts			
	Location (B) to Location (C) — 10 Pair				
	Location (B) to Location (D) — 20 Pair				
	Location (B) to Location (E) — 50 Pair				
	Location (B) to Location (F) — 20 Pair				
<b>(IV)</b>	<b>Saragaon T/ Exchnge</b>				
	Exch to Location (A) — 100 Pair	IV less than 430 Volts			
<b>(V)</b>	<b>Chandkhuri T/ Exchnge</b>				
	Exch to Location (A) — 50 Pair	IV less than 430 Volts			
	Exch to Location (B) — 50 Pair				
<b>(VI)</b>	<b>Rasani T/ Exchnge</b>				
	Location (A1) to Location (B 1) — 400 Pair	IV less than 430 Volts			
	Location (A1) to Location (B2) — 400 Pair				
<b>(VII)</b>	<b>Rajim T/ Exchnge</b>				
	Exch to Location (A) — 100 Pair	IV less than 430 Volts			
	Exch to Location (B) — 200 Pair				
<b>(VIII)</b>	<b>Nawapara T/ Exchnge</b>				
	Exch to Location (A) — 200 Pair	IV less than 430 Volts			
	Exch to Location (B) — 200 Pair				
<b>(IX)</b>	<b>Dhamtari Main T/ Exchnge</b>				
	Exch to Location (A) — 800 Pair	Out of parallelism			
	Exch to Location (B) — 200 Pair				
	Exch to Location (C) — 400 Pair				
		 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 - I

Case No.: CHH-71					
Name of the Power Line: 400 KV D/C Raita (Raipur) – Jagdalpur transmission line.		मानचित्र स्केल : 1 सेमी=500 मीटर कुल लम्बाई : 329 कि.मी. एस. आर. मान : 27,500 ओम- सेमी			
क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	म्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में

	<b>Route Map (2) of (2)</b>				
(I)	<b>Lakhanpuri T/ Exchnge</b>				
	Exch to Location (A) — 50 Pair				
	Exch to Location (B) — 50 Pair				
	Location (B) to Location (C) — 10 Pair				IV less than 430 V
	Exch to Location (D) — 10 Pair				
(II)	<b>Kanker T/ Exchnge</b>				
	Exch to Location (A) — 400 Pair				
	Exch to Location (B) — 400 Pair				
	Exch to Location (C) — 400 Pair				
	Exch to Location (D) — 200 Pair				
	Location (C) to Location (E) — 200 Pair				IV less than 430V
	Location (D) to Location (F) — 50 Pair				
	Location (B) to Location (G) — 10 Pair				
(III)	<b>Tikrapara T/ Exchnge</b>				
	Exch to Location (A) — 400 Pair				
	Exch to Location (B) — 400 Pair				
	Exch to Location (C) — 400 Pair				
	Location (A) to Location (D) — 50 Pair				IV less than 430V
	Location (B) to Location (E) — 20 Pair				
	Location (C) to Location (F) — 50 Pair				
	Location (F) to Location (G) — 20 Pair				
(IV)	<b>Baniyagaon T/ Exchnge</b>				
	Exch to Location (A) — 20 Pair				
	Exch to Location (B) — 20 Pair				
	Exch to Location (E) — 50 Pair				
	Location (E) to Location (C) — 10 Pair				IV less than 430V
	Location (E) to Location (D) — 20 Pair				
(V)	<b>Kondagaon T/ Exchnge</b>				
	Exch to Location (A) — 100 Pair				
	Exch to Location (B) — 100 Pair				
	Exch to Location (C) — 200 Pair				
	Location (C) to Location (D) — 100 Pair				
	Location (C) to Location (E) — 100 Pair				IV less than 430V
	Location (D) to Location (F) — 50 Pair				
	Location (E) to Location (G) — 20 Pair				
	Location (A) to Location (I) — 50 Pair				
	Location (B) to Location (H) — 20 Pair				

  
 नरेश बंडारी/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 - I

Case No.: CHH-71

Name of the Power Line: 400 KV D/C Raita (Raipur) - Jagdalpur transmission line.

मानचित्र स्केल : 1 सेमी=500 मीटर  
कुल लम्बाई : 329 कि.मी.  
एस. आर. मान : 27,500 ओम-सेमी

क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	म्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट (एम्पियर) में	प्रेरण वोल्टेज (वोल्ट) में
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(VI)	<b>Lanjoda T/ Exchange</b> Exch to Location (A) — 20 Pair Exch to Location (B) — 20 Pair	IV less than 430V			
(VII)	<b>Pharushgaon T/ Exchange</b> Exch to Location (A) — 50 Pair Exch to Location (B) — 50 Pair Exch to Location (C) — 100 Pair Location (C) to Location (D) — 20 Pair Location (C) to Location (E) — 50 Pair	IV less than 430V			
(VIII)	<b>Bahigaon T/ Exchange</b> Exch to Location (A) — 20 Pair Exch to Location (B) — 20 Pair	IV less than 430V			
(IX)	<b>Keshkal T/ Exchange</b> Exch to Location (A) — 100 Pair Exch to Location (B) — 50 Pair Exch to Location (C) — 200 Pair Location (C) to Location (D) — 100 Pair Location (C) to Location (E) — 50 Pair .	IV less than 430V			
(X)	<b>Bhanpuri T/ Exchange</b> Location (A) to Location (1) — 100 Pair Location (1) to Location (2) — 50 Pair Location (2) to Location (B) — 20 Pair	3.5 1.25	0.0464 0.0331	13860 13860	643 460
		IV less than 430V			

नरेश भंडारी/NARESH BHANDARI  
मुख्य अभियन्ता/Chief Engineer  
केंद्राय विद्युत प्राधिकरण/C.E.A.  
विद्युत मंत्रालय/Ministry of Power  
भारत सरकार/Govt. of India  
नई दिल्ली/New Delhi-85

## ANNEXURE - II

Case No.: CHH-71

Name of the Power Line: 400 KV D/C Raita (Raipur) – Jagdalpur transmission line.

मानचित्र स्केल : 1 सेमी=500 मीटर  
कुल लम्बाई : 329 कि.मी.  
एस. आर. मान : 27,500 ओम-सेमी

क्रम संख्या	टेलीकाम विवरण	समानांतरिय लम्बाई (कि.मी) में	म्युचुअल कप्लिंग (ओम) में	प्रभावी फाल्ट करंट ( एम्पियर) में	प्रेरण वोल्टेज ( वोल्ट) में
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## SOUTH EAST CENTRAL RAILWAY

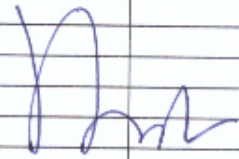
Ref. No: SECR /S&amp;T / PTCC / CG / 1075

DATED: 22-08-2017

**Affected Blocks & Telcom Circuits Details**

Tilda - Baikhunth(PH)	Out of parallelism			0
Baikhunth(PH) - Silyari	6.8	0.0078	10750	84
Silyari - Mandhar	12.6	0.00036	10710	4
Abhanpur - Rajim	No cable*			0
Abhanpur - Dhamtari	No cable*			0

- SECR letter above has indicated "No cable " hence induction has not been computed.

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

ANNEX - III

EAST COAST RAILWAY

Office of the  
Principal Chief Signal & Telecom Engineer  
Ground Floor, North Block  
Rail Sadan, Bhubaneswar - 17  
Date: 14.11.2018  
15

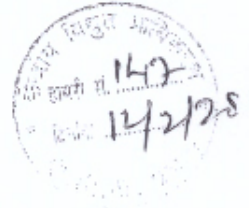
No. ECoR/S&T/BBS/Tele/PTCC/57/Part-II/1274

To  
The Divisional Engineer (Telecom), PTCC  
Juhudanda Administrative Building,  
Third Floor, Juhu Tara Road,  
Shantakruz West,  
Mumbai-400054.

Sub: PTCC Clearance Proposal.  
Ref: CSPTCL, Ltr No: CE/C&P/PTCC/885,Raipur, Dated:05.08.2016.

Vide above reference, PTCC route map proposal was received. Accordingly Survey has been made for the same and it is clarified that, induced voltage effect is nil on Signal & Telecom circuits as jurisdiction of East Coast Railway doesn't come under the vicinity of 8 km of erection of the above power line.

Sl No.	Case No. & Date	Particulars of power line
1.	CE/C&P/PTCC/885,Raipur, Dated:05.08.2016	Construction of 400 KV dc ds Raita(Raipur)-Jagdarpur line-PTCC approval from the DET(PTCC).



Hence no objection for the above proposal is hereby communicated for taking further necessary action at your end.

This issues with the approval of competent authority.

Sh Abraham, Jir

(B.K Dash)  
SSTE/TELE/HQ/BBS  
For PCSTE/ECOR/BBS

Copy to:

- Pl per case
- 1274/19
- (i) Chief Engineer(C&P), C.S.P.T.L, 3rd Floor, SLDC Building, CSPTCL, Danganiya, Raipur, for information please.
  - (ii) SDE(PTCC), Room No:11, Annex Building, Door Sanchar Bhavan, Hosangabad Road, Bhopal-462015 for information please.
  - (iii) Sr.DSTE/WAT for information and necessary action please.
  - (iv) PCSTE/BSP for information and necessary action please.

(v) Director/PTCC/CEA/NREB Complex, 18A/1, Sahed Jeet Singh Marg, Katwarza Sarai, New Delhi - 110066 for information please. 11.2.19

Tele : 23019746

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

B/46937/Sigs 7(b)/343

26 Oct 2016

✓ Chief Engineer (C&P)  
Chhattisgarh Station Power Transmission Co. Ltd  
3<sup>rd</sup> Floor, SLDC Building,  
Dangania, Raipur

E.D. (C&P)  
CSPTCL  
GEN. LETTER  
NO. 3058  
Dt. 7/11/16

**PROPOSAL FOR OBTAINING PTCC APPROVAL FOR CONSTRUCTION  
OF 400KV DCDS RAITA (RAIPUR) - JAGDALPUR LINE PTCC APPROVAL  
FROM THE DET (PTCC)**

*in a  
w file  
PTCC*

1. Ref your letter No CE/C&P/PTCC/885 dated 05 Aug 2016.
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are forwarded herewith for your further action.

~~SECPL~~

~~EE (C&P) II~~

*RE C&P II  
for record & updation  
[Signature]*

*[Signature]  
7.11.16*

*[Signature]*  
(BS Kunwar)  
Lt Col  
GSO 1 (Comn)  
for SO-in-C

**Enclosures :** (As above)

The Director (PTCC), CEA  
PCDD, NRPC Complex  
18-A, Shaheed Jeet Singh Marg  
Katawaria Sarai, New Delhi - 110016

- For information please