



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

No.:CEA/PCD/PTCC/UP-454B/2557-59

Date:07.12.2018

DET (PTCC), Inspection Circle,
3rd Floor, D-Wing, BSNL Admin Building,
Juhu Tara Road, Santacruz (West),
Mumbai-400054

Subject: Induced Voltage Calculation in respect of PTCC proposal for 400 kV S/C Singrauli – Allahabad Transmission Line (MP Portion)

Reference: (i) BSNL letter no. IC/MBI/PTCC/MP-458 dated 26.09.2017
(ii) West Central Railway letter no. WCR/N-HQ/120/PTCC/CORR/T-50/Pt-III-168 dated 28.11.2016
(iii) Defense letter no. B/46937/Sigs 7(b)/371 dated 21.03.2017

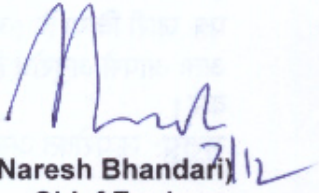
Sir,

The instant PTCC proposal has been examined. Low frequency induction on telecom cables of BSNL and Block & Telecom circuits of West Central Railway with respect to details furnished vide above references has been computed. The Soil Resistivity (SR) value has been taken as 25,000 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of West Central Railway under Single Line to Ground fault condition have been computed and are enclosed as Annex – I & 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

m/c



(Naresh Bhandari)
Chief Engineer

Copy to:

- 1) GM (S&T), Office of the GM (S&T), 1st Floor, Annex II Building, West Central Railway, Jabalpur - 482001(Annex – II only)
- 2) AGM (TL-Const.), PGCIL, 6th Floor, Indira Bhavan, Civil Lines, Allahabad, UP - 211001

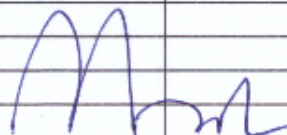
Case No. : UP-454B		Annexure I			
Name of the Power line: 400 kV S/C Singrauli – Allahabad Transmission Line (MP Portion)		मानचित्र स्केल : 1सेमी=500 मीटर कुल लम्बाई : 114.482. कि.मी. एस. आर. मान : 25,000 ओम-सेमी			
क्र.सं.	दूरसंचार विवरण	समानता की लम्बाई (की. मी.)	म्यूच्युअल कपलिंग (ओम में)	फाल्ट करंट (एम्पस में)	प्रेरित वोल्टेज (वोल्टस में)

BSNL					
Ref. IC/MBI/PTCC/MP-458 Date 26.09.2017					
Sidhi SSA					
SDOP Waidhan					
A Bargawa Exch					
1	Exch. – Forest Depot 100 pair				IV LESS THAN 430 V
2	Exch. – Forest Depot 50 pair				
3	Exch – Daga 200 pair				
4	Exch – Daga- 100 pair				
5	Exch – Daga- 50 pair				
6	Daga – Daga Local				
7	Exch – Over bridge – 100 pair				
8	Exch – Over bridge – 20/10 pair				
B Devsar Exch					
1	Exch - Local				IV LESS THAN 430 V
2	Exch – Jiyawan – 50 pair	1.9	0.0492	9600	472
3	Exch – Jiyawan – 20/10 pair	1.9	0.0492	9600	472
4	Exch – Devsar PS – 100 pair				IV LESS THAN 430 V
5	Exch – Devsar PS – 50 pair				
6	Exch – Devsar PS- 20/10 pair				
7	Exch – Itar Dhanha – 50 pair				
8	Exch – Itar Dhanha- 20/10 pair				
SDOP Sidhi					
A Ailiya Exchnage					
1	Exch – Thana Chowk – 100 pair				IV LESS THAN 430 V
2	Exch – Thana Chowk – 50 pair				
3	Chowk - Hinauti				
4	Chowk - Kadura				
5	Exch - Tikar				
6	Exch – Talab Amiliya				
7	Exch – Gupta Market				
8	Exch - Khiuli				
9	Tikar - Karimar				
B Bahari Exchange					
1	Exch - Forest				IV LESS THAN 430 V
2	Exch – Bus Stand				
3	Bus Stand- Tarka Road				
4	Bus Stand - Keshwahi				


 मुख्य अभियंता/Chief Engineer
 संचार विभाग/Communication S. A.
 ई. ए. ए. बिल्डिंग, एन. टी. रोड,
 South Extension, Ring Road, Puram,
 नई दिल्ली/ New Delhi-66

Case No. : UP-454B		Annexure I			
Name of the Power line: 400 kV S/C Singrauli – Allahabad Transmission Line (MP Portion)		मानचित्र स्केल : 1सेमी=500 मीटर कुल लम्बाई : 114.482. कि.मी. एस. आर. मान : 25,000 ओम-सेमी			
क्र.सं.	दूरसंचार विवरण	समानता की लम्बाई (की. मी.)	म्यूच्युअल कपलिंग (ओम में)	फाल्ट करंट (एमप्स में)	प्रेरित वोल्टेज (वोल्टस में)

	REWA SSA				
	SDOP Mauganj				
A	Mauganj Exchnage				
1	Exch – Allahabad Bank	IV LESS THAN 430 V			
2	Exch - Tehsil				
3	Exch – Mahindra Finance				
4	Exch – LIC office				
5	Exch – Gas Agency				
B	Naigarhi Exchnage				
1	Exch – Post office	OUT OF PARALLELISM			
2	Exch – Police station				
	SDOP Tyother				
A	Ghooma Katra Exchange				
1	Katra Exch – Post office	IV LESS THAN 430 V			
2	Katra Exch – Kalwandi Mod				
3	Katra Exch - NTPC				
4	Katra Exch- School				
B	Tyother Exchnage				
1	Exch – Post office/Bazar	OUT OF IV CALCULATION CONSIDERATION ZONE			
2	Stand –Police chowki				
3	Stand - Tehsil				
C	Chakghat Exchnage				
1	Exch – Bihari Chouraha	IV LESS THAN 430 V			
2	Bihari Chouraha – LIC office				
3	Bihari Chouraha - Bagheri				



मुख्य अभियंता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.के. एम्.
 सुपर हाउसिंग, B.C. Puram,
 नई दिल्ली-110066/Delhi-66

Case No. : UP-454B

Annexure II

Name of the Power line: 400 kV S/C Singrauli – Allahabad
Transmission Line (MP Portion)

मानचित्र स्केल : 1सेमी=500 मीटर
कुल लम्बाई : 114.482 कि.मी.
एस. आर. मान : 25,000 ओम-सेमी

क्र.सं.	दूरसंचार विवरण	समानता की लम्बाई (की. मी.)	म्यूच्युअल कपलिंग (ओम में)	फाल्ट करंट (एम्पस में)	प्रेरित वोल्टेज (वोल्टस में)
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West Central Railway

Ref. WCR/N-HQ/120/PTCC/CORR/T-50/pt-III-168 Date 28.11.2016

क्र.सं.	दूरसंचार विवरण	समानता की लम्बाई (की. मी.)	म्यूच्युअल कपलिंग (ओम में)	फाल्ट करंट (एम्पस में)	प्रेरित वोल्टेज (वोल्टस में)
1	Madhiya - Bargawan	2.9	0.0013	11000	14
2	Bargawan – Majholi MACLS	4.0	0.0151	11500	174
3	Majholi MACLS - Deoragram	1.8	0.0003	11400	3

मुख्य अभियन्ता/Chief Engineer
केन्द्रीय विद्युत प्रविकरण/C.E.A.
सेवा भवन, आर.के. पुरम,
Sector 10, Okhla, R.K. Puram,
New Delhi-66

Tele : 23019746

UP-454

Annex-III

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

B/46937/Sigs 7(b)/371/

21 Mar 2017

Mr Y P Singh
Asst. General Manager
Power Grid Corporations of India Ltd
6th Floor, Indira Bhawan,
Civil Line, Allahabad - 211001

**ISSUANCE OF NOC FOR PTCC PROPOSAL OF 400KV S/C SINGRAULI -
ALLAHABAD TRANSMISSION LINE, FOR STRENGTHENING OF NORTHERN
REGION SYSTEM STRENGTHENING (NRSS XXX)**

1. Reference your letter No. NR-3/ALD/S-A/PTCC/1327 dt 16 Sep 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 returned herewith for your further necessary action.

Bikram

(Bikram Kunwar)
Lt Col
GSO 1 (Comn)
for SO-in-C

Encls : (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.