



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/UP-487/57-60

Date: 16.01.2020

DET (PTCC), Northern Zone,
Bharat Sanchar Nigam Limited (BSNL),
O/o PGM(N), Inspection Circle,
CTS Compound, Netaji Nagar,
New Delhi - 110023

17

Subject: Induced Voltage calculation in respect of PTCC proposal of 765 kV S/C Anpara 'D' – Jhunsi Transmission Line

- Ref:** (i) Executive Engineer, UPPTCL letter no.656/ETD(M)/765KV Anpara D-Jhunsi T/L dated 05.04.2019
(ii) BSNL letter no. DET/PTCC/ND/DV-9463/UP-713/2019-2020 dated 14.01.2020
(iii) North Central Railway letter no. NCR/S&T/2074/Telecom./PTCC(Part-1) dated 21.06.2019
(iv) East Central Railway letter no. ECR/S&T/PTCC/134, pt.III dated 04.07.2019
(v) Defense letter no. B/46937/Sigs 7(b)/1594/ dated 28.08.2019

The PTCC case submitted vide reference (i) has been examined. The low frequency induction on BSNL, North Central Railway and East Central Railway Telecommunication circuits as per details furnished vide above cited references (ii), (iii) & (iv) respectively has been examined. The Soil Resistivity value has been taken as 5,000&10,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables, North Central Railway and East Central Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I, II & III respectively. Defense vide above Ref.(v) has accorded NOC for the line. (A copy enclosed at Annex-IV)

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

Encl.: As above

Upendra Kumar
17.01.2020

(Upendra Kumar)
Chief Engineer

Copy to:

- 1) ASTE, Tele, NCR, HQ's office (S&T branch), Ganga Parisar, Subedarganj, Allahabad 211015 (only Annex-II)
- 2) GM(S&T), East Central Railway, Hajipur. (Only Annex- III)
- 3) Executive Engineer, Electricity Transmission Division, Patharahiya Raod, Mirzapur (U.P.) - 231001

MIC

Case No. : UP-487

Name of the Power Line: 765 KV Anpara (D)- Jhushi Transmission Line

Annexure I

Toposheet Scale : 1cm=500mts

Total Length : 187.316 Kms

S.R Value : 10,000 Ohm-cm

Sl. No.	Name of Telecom Line	LOP in Kms	MC in Ohms	Fault Current (Amps)	IV in Volts
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BSNL

Reference No. DET/PTCC/ND/DV-9463/UP-713/2019-20

Date :- 14.01.2020

BSNL Details					
1	Manda Road to BamPur (100 Pr) 3.0 KM	} ← IV less than 430V →			
2	Manda Road to BamPur (50 Pr) 3.0 KM				
3	Manda Road to Chilbila9 \$ x 100 Pr.) 2.0 KM				
4	Chilbila to Dighiya (50 Pr.) 4.0 KM	4.5	0.0398	15800	629
5	Bharatganj to Post office (400 Pr) 1.0 KM	} ← IV less than 430V →			
6	Post Office to Manda Khas (50 Pr) 3.0 KM				

V. Prasad Kumar
17.01.2020
मुख्य अभियंता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi

ANNEXURE-II

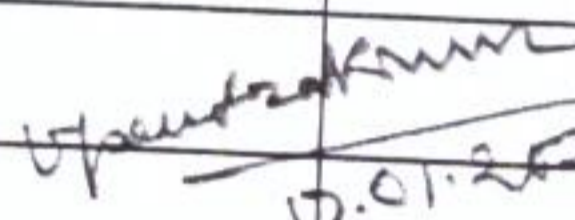
Case No.: UP-487 Name of the Power line: 765KV S/C Anpara (D) – Jhunsi Transmission Line			Map Scale : 1cm=500mts Total Length : 187.316Km. S.R. Value : 5,000 & 10,000 Ohms-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

NORTH CENTRAL RAILWAY

Ref. No: NCR / S&T / 2074 / TELCOM. / PTCC (PART-1) DATED: 21-06-2019

Affected Blocks & Telcom Circuits Details

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
1	Meja Road - Unchdih	0.5	0.0001	17765	2
2	Unchdih – Manda Road	4.5	0.0041	16500	68
3	Manda Road – Jigna	5	0.0009	15800	14
4	Jigna – Gaipura	1.5	0.0003	15300	5


 17.07.2020
 मुख्य अभियंता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi

ANNEXURE-III

Case No.: UP-487

Name of the Power line: 765 KV D/C – Anpara (D) – Jhansi
Transmission LineMap Scale : 1cm=500mts
Total Length : 187.316Km.
S.R. Value : 5000 & 10,000 Ohms-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
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EAST CENTRAL RAILWAY

Ref. No: ECR / S&T / PTCC / 134 , Pt.III DATED: 04-07-2019

Affected Blocks & Telcom Circuits Details

1	Billi – Obradam	3.0	0.0003	15750	5
2	Obradam – Paparkund	5.6	0.0009	16100	14
3	Paparkund - Magardah	6.5	0.0007	16800	12
4	Magardah – Khudil Road	6.0	0.0038	17100	65
5	Khuldil Road – Mirchadhori	10.0	0.0027	17700	48
6	Khudil Road – Karaila Road	1.0	0.0001	17800	2
7	Karaila Road – Charki	} -----Out Side IV Consideration Zone-----			0
8	Charki – Singurauli				0
9	Singurauli – Mahadiya				0
10	Karaila Road – Anapara	0.5	0.0003	19400	6

Upendra Kumar
17.01.2023मुख्य अभियंता / Chief Engineer
केन्द्रीय विद्युत प्राधिकरण / C.E.A.
विद्युत मंत्रालय / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi

Tele : 23019746

UP-487
Annex-IV
Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi - 110011


B/46937/Sigs 7(b)/1594/

Aug 2019

Office of the Executive Engineer
Electricity Transmission Division
U.P. Power Transmission Corporation Limited
Patharahiya Road-Mirzapur(U.P.)-231001

PTCC CLEARANCE FOR CONSTRUCTION OF 765KV ANPARA 'D'-JHUNSI TRANSMISSION LINE

1. Ref your letter No 656/ETD(M)/765KV Anpara "D" Jhunsu line dt 05 Apr 2019. (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.


(Anurag Mishra)
Lt Col
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

- Divisional Engineer Telegraph (PTCC)
O/o GM (North); BSNL, QA & Inspection Circle,
CTS Compound, Africa Avenue Road,
Netaji Nagar, New Delhi-110023

for information

sh. Jais, AD
PP
02/08
Din - fms
UK
03/09

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3/9/19