



भारत सरकार

Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
विद्युत संचार विकास प्रभाग  
Power Communication Development Division

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No. CEA/PCD/PTCC/MP-452/586-88

Date: 23.09.2020

**Subject: Induced Voltage calculation in respect of PTCC proposal for 220 kV DCDS line from Rewa (UMSP) 400 kV Grid S/s to be constructed by PGCIL at Gurh to 220 kV S/s Sidhi length – 62.860 kms.**

- Ref:** (i) MPPTCL letter no. 04-01/PTCC/2570/TR-I/11801 dated 02.02.2019  
(ii) BSNL letter no. IC/MBI/PTCC/MP-595 dated 01.10.2019  
(iii) West Central Railway letter no. WCR/N-HQ/120 PTCC-T-50-III Case-252 dated 18.07.2019  
(iv) Defense letter no. B/46937/Sigs 7(b)/1466 dated 19.03.2019

MPPTCL submitted the subject proposal vide above cited reference (i). The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (ii) and (iii) respectively has been examined. The Soil Resistivity value has been taken as 7,500 Ohms-cm, as per data submitted by the Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I&II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iv) for the above line (a copy enclosed at Annex-III).

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

Enclosures: As above.

(Upendra Kumar)  
Chief Engineer

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

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Copy to:

1. GM(S&T), West Central Railway, S&T Deptt., 1<sup>st</sup> Floor, Annex II Building, Platform No. 6, Jabalpur - 482001 (with Annexure-II).
2. Chief Engineer (Procurement), MPPTCL, Block No. 3, Shakti Bhawan, Rampur, Jabalpur (M.P.) - 482008

(Annex-2)

CEA Office Case No.: <b>MP-452</b>		Map Scale: 1:50,000			
DET (PTCC) Office Case No.: IC/MBL/PTCC/MP-595		Route Length: 62.860 Kms			
Railway Office Case No.:		Average SR Value: 1500 Ohm cms			
Name of Power Line		220KV DCDS line from Rewa (UMPS) 400KV Grid S/s to be created by PGCIL at (Gurh) to 220KV S/s Sidhi.			
S. No.	Name of Telecom Line/ Cable	Length of Parallelism in Kms.	Mutual Coupling in Ohms	Fault Current in Amps	Induce Voltage in Volts
	REWA SSA				
	SDOT Rewa				
	Gurh T/Exchange				
(1)	Gurh Exch to Bus Stand (A-C) - 50 Pair	}	LESS THAN	430V	
(2)	Gurh Exch to Thana (A-B) - 5 Pair				

Jay

तनुज / TANUJ  
आसिस्टेंट डायरेक्टर - II / Asst. Director-II  
मंत्रालय विद्युत आपूर्ति / Ministry of Power  
भारत सरकार / Govt. of India  
नई दिल्ली / New Delhi-66



Amex-III

MP-452

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)/1466/

19 Mar 2019

Chief Engineer (Procurement)  
Madhya Pradesh Power Transmission Co. Ltd.  
Block No. 3, Shakti Bhawan, Rampur,  
Jabalpur(M.P.)482008

**PTCC ROUTE APPROVAL FOR CONSTRUCTION OF 220KV DCDS LINE FROM REWA  
(UMSP) 400KV GRID S/S TO BE CREATED BY PGCIL AT (GURH) TO 220KV S/S SIDHI**

- 1 Ref your letter No 04-01/PTCC/2570/TR-I/11801 dt 02 Feb 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.

*(Handwritten signature)*

(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.

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२१/३

SGS  
28/3/2019