

भारत सरकार Government of India विदयत मंत्रालय Ministry of Power केन्द्रीय विदयत प्राधिकरण Central Electricity Authority पावर कम्यनिकेशन डवलप्मेंट प्रभाग Power Communication Development Division

No. CEA/PCD/PTCC/MRA- 1088/ 56-59

Date: 16/01/2019

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

Subject: IV calculation for PTCC Route Approval for 400kV D/C (Quad) Solapur(STPP) to Solapur (PG) line associated with Solapur STPP(2x660MW) Generation Project.

Ref: i) BSNL Letter No. IC/MBI/PTCC/MRA-2217/

ii) Central Railway Letter No.N.153/PTCC/400kV/MAH-530

iii) South Western RailwayLtr.No.SG/SWR/PTCC/PGCIL/SOLAPUR/1376

iv) Defense letter No. B/46937/Sig 7(b)/1135

Dated-03/03/2017. Dated 26/06/2014.

Dated 20/09/2016

Dated 25/07/2018

Sir

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i), (ii) & III respectively has been examined. The Average Soil Resistivity value has been taken as 5,000 Ohms-cm, as measured during site inspection by CEA and Power utility officers. Voltages likely to be induced on paralleling BSNL and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I, & IIA, IIB respectively. The screening factors as applicable have been considered. Vide ref. (iv)above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex - III).

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

Encl: As above

Yours faithfully,

(Naresh Bhandari)

Chief Engineer

Copy to:

 AESTE, Central Railway, Headquarters Office (S&T Branch) 3rd Floor, Annex Building. CST Mumbai-400001 (Annexure-IIA only)

2. CSTE, South Western Railway, Office of the Chief Signal & Telecom Engineer, 1st Floor, West block, New Zonal Office Building, Gadag Road, Hubli-20, Karnataka (Annexure-IIB

 Deputy General Manager, Power Grid Corporation of India Ltd., (PGCIL),765/400/220kV Substation, 22 KM Milestone Akkatkot Road, Village Limbi-Chincholi, Post-Valsang, Taluk -South Solapur, Solapur, Maharashtra-413228.

ANNEXURE - I

Case No.: MRA-1088 Map Scale : 1cm=500mts Name of the Power line: Total Length: 11.2 Km. 400 KV D/C line from SOLAPUR STPP -SOLAPUR(PGCIL) S.R. Value : 5,000 Ohms-cm Effective Length of Mutual Fault I.V Parallelism Coupling current in S.No. Telecom. Details in Km. in Ohms. in Amps. Volts.

| | Ref. No. IC/MBI/PTCC/MRA-2217 Dated at Mumbai, the 03/03/2017 | | | | |
|---|--|---|---|---------------|-----|
| | | | | | |
| | CHINCHOLI TE- GURDEHALLI RD 50 PAIR U/G CABLE | IV less than 430 Volts | | | |
| 2 | CHINCHOLI TE-HANAMGAON 20 PAIR U/G CABLE | 2.6 | 0.042 | 15000 | 630 |
| 3 | VALSANG TE - ACHEGAON 50 PAIR U/G CABLE | IV less than 430 Volts | | | |
| 1 | HOTGI TE-SHINGADGAON 50 PAIR U/G CABLE | 4.6 0.0502 11500 57 | | | 577 |
| 5 | HOTGI TE- HOTGI RLY.STATION 50 PAIR U/G CABLE ONWARDS 20 PAIR TO AUJ | IV less than 430 Volts | | | |
| 3 | AHERWADI TE- TILLEHAL 50 PAIR U/G CABLE | Out of IV consideration zone. | | | |
| | | | 1 | M | |
| | | | नरेश भंडारी/NARE मुख्य अभियन्ता/C केन्द्रीय विद्युत प्रा | hief Engineer | |
| | | केन्द्रीय विद्युत प्राधिकरण/C.E.A. विद्युत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delhi-66 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | - |

ANNEXURE-IIA

Case No.: MRA-1088 Name of the Power line:

400 KV D/C line from SOLAPUR STPP -SOLAPUR(PGCIL)

Map Scale : 1cm=500mts Total Length : 11.2 Km.

S.R. Value : 5,000 Ohms-cm

| | | | | | Effective | |
|---|-------|------------------|-------------|----------|-----------|--------|
| | | | Length of | Mutual | Fault | I.V |
| | | | Parallelism | Coupling | current | in |
| 1 | S.No. | Telecom. Details | in Km. | in Ohms. | in Amps. | Volts. |

| | CENTRAL RAILWAY Ref. No. N.153/PTCC/400kV/MAH-530 Date: 26th June 2014 | | | |
|---|--|--|--|--|
| | | Bate : 20 Garle 2014 | | |
| 1 | SOLAPUR - TIKEKARWAD | Out of IV consideration zone | | |
| 2 | TIKEKARWAD - HOTGI | 1.7 0.0042 10900 44 | | |
| 3 | HOTGI - TILATI | 1.8 0.0010 6000 8 | | |
| 4 | TILATI - AKALKOT | Out of parallelism | | |
| | | | | |
| | | 00 | | |
| | | | | |
| | | | | |
| | | · IVW | | |
| | | नौश भंडारी/NARESH BHANDARI | | |
| | | पुख्य अभियन्ता/Chief Engineer | | |
| | | केन्द्रीय विद्युत प्राधिकरण/C.E.A. | | |
| | | पुष्य 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 - IIB

Case No.: MRA-1088 Map Scale : 1cm=500mts Name of the Power line: Total Length: 11.2 Km. 400 KV D/C line from SOLAPUR STPP -SOLAPUR(PGCIL) S.R. Value : 5,000 Ohms-cm Effective Length of Mutuai Fault I.V Parallelism Coupling current in S.No. Telecom. Details in Km. in Ohms. in Amps. Volts.

| ecte | ed Blocks & Telcom Circuits D | etails | | | | | |
|------|-------------------------------|--------|--|---------------|---|--|--|
| | | | | | | | |
| | TADVAL - HOTGI | 0.6 | 0.0003 | 10900 | 3 | | |
| | | | | | | | |
| | | | A | Λ | | | |
| | | | | | | | |
| | | | | H_ A | | | |
| | | | The state wife | DESH BHANDARI | - | | |
| | | | नरेश भंडारी/NARESH BHANDARI मुख्य अभियन्ता/Chief Engineer कन्दीय विद्युत प्राधिकरण/C.E.A. विद्युत मंत्रालय/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delhi-66 | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | नई दिल्ली / | New Delhi-66 | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | - | | |
| | | | | | - | | |
| | | | | | - | | |
| | | | | | + | | |
| | | | | - | - | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| _ | | | | | - | | |
| - | | | | - | + | | |
| | | | | - | | | |
| | | | | - | + | | |
| | | | | | - | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

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)/1135 /

25 Jul 2018

Power Grid Corporation of India Limited 765/400/220 KV Sub-Station, 22 K.M. Akkalkot Road, Village Limbi-Chincholi, Post Walsung, Tal. South Solapur, Solapur-413 228

SUBMISSION OF PROPOSAL FOR PTCC ROUTE APPROVAL OF CONSTRUCTION OF 400 KV D/C SOLAPUR (STPP) TO SOLAPUR (PG) LINE ASSOCIATED WITH SOLAPUR STPP (2 X660 MW) GENERATION PROJECT-REG.

- Reference your letter WR-I/SLP/400 KV/ EMCO/PTCC/11/5/2018/A dt 11 May
 2018 (copy att).
- No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet received under your letter mentioned above.
- Documents alongwith map sheets (in original) are returned herewith for your further necessary action.

(A Rawat)

Maj

GSO 1 (Comn) for SO-in-C

Copy to :-

Central Electricity Authority
Power Communication Development Division
NRPC Complex,18-A, Shaheed Jeet Singh S Marg
Katwaria Sarai, New Delhi – 110016

- For information.

