

दक्षिण पूर्व रेलवे  
SOUTH EASTERN RAILWAY

प्र.मु.सि. व दू.सं.इंजी. का कार्यालय/  
Office of the PCSTE,  
गार्डनरीच/Garden Reach,  
कोलकाता/Kolkata – 43.

Computer No.132964

दिनांक/Date 22/03/2023

CAO/C, PCE,  
Divisional Railway Manager  
CKP, KGP, ADA, RNC  
South Eastern Railway,

**Sub:-** Regarding implementation of Telecom Circular No. 17/2013 contractually in future contracts.

**Ref:-** 1. Railway Board's letter No. 2003/Tele/RCIL/1/Pt.IX dated 24/06/2013.  
2. This Office Letter No. S&T/T/138/Pt.X/4017 dated 22/12/2016.

With reference to above, a Joint Procedure Order for undertaking digging work in the vicinity of underground Signalling, Electrical and Telecommunication cable has been issued from Railway Board.

As per item No. 18 of this JPO, **"Railway shall make necessary correction in their future contract so that this JPO can also be enforced contractually"**.

This was already advised vide this office letter No.S&T/T/138/Pt.X/4017 dated 22/12/2016 in the past also for its implementation. But, it is observed that this has not been implemented contractually so far as desired vide Item No. 18 of this JPO.

Therefore, it is once again advised to ensure **its proper implementation** as instructed and desired in the JPO.

Encl:- 1. JPO Telecom Circular No.17/2013  
2. This Office Letter dated 22/12/2016.

JAI PRAKASH  
SHIVAJI

(Jai Prakash Shivaji)  
Chief Signal Engineer

Digitally signed by JAI  
PRAKASH SHIVAJI  
Date: 2023.03.22 18:36:53  
+05'30'

Copy to :- CSTE/Con and CSTE/Project for necessary action please.

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

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No.2003/Tele/RCIL/1 Pt.IX

New Delhi dated 24.06.2013

General Managers,  
All Indian Railways.

Telecom Circular No. 17/ 2013

Sub: Procedure for undertaking digging work in the vicinity of Signaling,  
Electrical and Telecommunication Cable.

JPO No. 1/Sig/2004 dated 16.12.2004 issued by Board on the subject matter was reviewed in consultation with Signal, Electrical, Civil Engineering and Works Directorates of Board.

2. The same has now been finalized and a copy of the Revised Joint Procedure Order duly signed by ED/TD, EDCE/P, ED/SD, ED/W and EDEE/M is attached for compliance.

3. Please acknowledge receipt.

DA: 1 in 5 pages.

  
(Rakesh Ranjan)  
Director(Telecom).

Copy to:-

- i) ED/TD, EDCE/P, ED/SD, ED/W and EDEE/M
- ii) CSTEs, All Indian Railways
- iii) CSTEs/Construction, All Indian Railways
- iv) ED/Tele, RDSO, Lucknow
- v) MD/RCIL, 143, Institutional Area, Sector 44,  
Gurgaon - 122003.Haryana.

o/c


Min. of Railways
Railway Board
Issue with Signature
Signature
Date of Issue

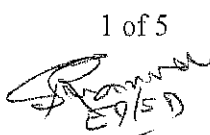
**Annexure to Telecommunication Circular No. 17/2013**

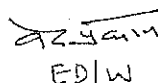
**JOINT PROCEDURE ORDER FOR UNDERTAKING DIGGING WORK  
IN THE VICINITY OF UNDERGROUND SIGNALING, ELECTRICAL &  
TELECOMMUNICATION CABLES.**

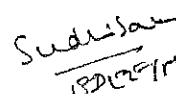
- A. A number of Engineering works in connection with gauge conversion/doubling/third line are in progress on various Railways, which require extensive digging work near the running track, in close vicinity of the working S&T cables carrying vital safety circuits as well as electrical cables feeding the power supply to cabins, ASM room, RRI Cabin, Intermediate Block Huts (IBH) etc. Similarly, S&T organisation under open line or construction units under CAO/C, are executing various Signaling and Telecom works requiring digging of earth for laying of cables or casting of foundations for the erection of signal posts etc. RailTel is also executing the work of laying of quad cable and OFC on various Railways as a part of sanctioned works for exclusive use of Railways for carrying voice and data i.e. administrative and control communication, PRS, FOIS etc. or shared by RailTel Corporation of India Ltd. On certain sections digging is also required for laying of electrical cable and casting of foundation for the erection of OHE masts by Electrical Deptt. Generally, these works are executed by contractors employed by these organisations.
- B. However, while carrying out these works in the vicinity of working signaling, telecommunication and electrical cables, at times, cable cuts take place due to JCB machines working along the track or during the digging work being done by contractors carrying out the Civil Engineering works. Similarly, such cable cuts are also resulting due to works undertaken by S&T or Electrical departments. Such cable faults results in the failure of vital signaling and telecommunication circuits & electrical installations.
- C. Henceforth, the following joint procedure shall be followed by Engineering, Electrical and S&T (and RailTel organisation, wherever such works are being done by them) officers of the respective divisions and by the construction organisation, while carrying out any digging work near to existing signaling & telecommunication and electrical cables, so that the instances of cable cut due to execution of works, can be controlled and minimized.
1. S&T department (and RailTel, where they have laid the cables) and Electrical department shall provide a detailed cable route plan showing exact location of cable at an interval of 200 m or wherever there is change in alignment so that the same is located easily by the Engineering official/contractor. In addition, S&T department and Electrical department shall also provide cable markers along the alignment of the cable. These cable route plans shall be made available to the Sr.DEN/DEN or Dy.CE/C, as the case may be, by Sr. DSTE/DSTE or Sr.DEE/DEE of the divisions or Dy. CSTE/C or Dy. CEE/C within 15 days in

  
ED/IT

  
ED/CE

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ED/SD

  
ED/W

  
Sd/CE

duplicate. Sr. DEN/DEN or Dy.CE/C will send copies to their field unit i.e. AEN/SE/P. Way & Works.

2. Before taking up any digging activity on a particular work by any agency, Sr. DSTE/DSTE or Sr.DEE/DEE of the section shall be approached in writing by the concerned Engg. or S&T or Electrical officer for permitting to undertake the work. Sr.DSTE/DSTE or Sr.DEE/DEE, after ensuring that the concerned executing agencies including the contractor have fully understood the S&T and Electrical cable route plan, shall permit the work in writing within 7 days of the request by concerned department.
3. After getting the permission from S&T or Electrical department as the case may be, the relevant portion of the cable route plan shall be attached to the letter through which permission is issued to the contractor by concerned Engg. official for commencement of work and ensuring that the contractors have fully understood the cable route plan and precautions to be taken to prevent damage to the underground cables. The contractor shall be asked to study the cable plan and follow it meticulously to ensure that the safety of the cable is not endangered. Such a provision, including any penalty for default, should form part of agreement also. It is advisable that a suitable post of SE/Sig or SE/Tele or SE/Electrical(TRD or G) shall be created chargeable to the estimates of doubling/gauge conversion, who can help Engg. agencies in the execution of the work. However basic responsibility will be of the department executing the work and the contractor. Creation of posts is not mandatory.
4. The SE/P.Way or SE/Works shall pass on the information to the concerned SE/Sig. or SE/Tele or SE/Electrical(TRD or G) about the works being taken up by the contractors in their sections at least 3 days in advance of the day of the work. In addition Engineering control shall also be informed by SE/P.Way or SE/Works, who in turn shall pass on the information to the test room/network operation center of RailTel/TPC/Electrical control.
5. On receiving the above information, SE/Sig or SE/Tele or SE/Electrical(TRD or G) shall visit the site on or before the date of taking up the work and issue permission to the contractor to commence the work after checking that adequate precautions have been taken to avoid the damage to the cables. The permission shall be granted within 3 days of submission of such requests.
6. The name of the contractor, his contact telephone number, the nature of the work shall be notified in the Engineering control as soon as the concerned Engineering officials issue the letter authorizing commencement of work to the contractor. Test room shall be given copies. Test room shall collect any further details from the Engineering control and shall pass it on to S&T/RailTel & Electrical officials regularly. In case the supervisors of concerned departments do not turn up on the day as advised in terms of para 4 and 5 above, the works of contractor should not be stopped on this account.

ED/TD

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ED/CD

ED/W

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7. In case of works being taken up by the State Government, National Highway Authority etc., the details of the permission given i.e. the nature of work, kilometer etc. be given to the Engineering control including the contact person's number so that the work can be done in a planned manner. The permission letter shall indicate the contact numbers of Test room/Network Operating Centre of RailTel/TPC/Elect. Control.
8. Where the nature of the work taken up by the Engineering department is such that the OFC or other S&T cables or Electrical cables is to be shifted and relocated, notice of minimum one week shall be given so that the Division/RailTel/Construction can plan the works properly for shifting. Such shifting works shall in addition, for security and integrity of the cables, be supervised by S&T supervisors/RailTel supervisors/Electrical supervisors.
9. The concerned SE/P.Way/SE/Works/SE/Sig/SE/Tele/ SE/Electrical(TRD or G) or RailTel supervisors supervising the work of the contractor shall ensure that the existing emergency sockets are not damaged in view of their importance in providing communication during accident/emergency.
10. In case of minor nature of works where shifting of cable is not required, in order to prevent damage to the cable, the Engineering contractor shall take out the S&T or optical fibre cable or Electrical cable carefully from the trench and place it properly alongside at a safe location before starting the earthwork under the supervision of SE/Sig. or SE/Tele or SE/Electrical(TRD or G). The cable shall be reburied soon after completion of excavation with proper care including placement of the brick over the cable under the supervision of S&T or Electrical supervisors. However, the work will be charged to the concerned engineering works. The responsibility for ensuring availability of SE (Signal), SE (Electrical) as per para 4 and 5 above lies with the respective department. The contractor will go ahead with the shifting of cables as per the program decided and he will not be held responsible for any cable cut.
11. In all the sections where major project are to be taken up/going on RailTel/S&T department shall deploy their official to take preventive/corrective action at site of work. As regards Electrical Department, the official may be deputed on need basis.
12. No new OFC or quad cable shall be laid close to the existing track. It shall be laid close to the Railway boundary on one side of the Railway track to the extent possible to avoid any interference with the future works (doubling etc.). It shall be ensured in the new works of cable laying that the cable route is properly identified with electronic or concrete markers. Wherever multiple cables are laid in a trench, RFID markers may be provided for easy identification of the cable. Henceforth, wherever cable laying is planned, before undertaking the cable laying work, the cable route plan of the same shall be prepared by the Dy.CSTE/C or Dy.CEE/C

*[Signature]*  
ED/ID

*[Signature]*  
ED/CEP

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*[Signature]*  
ED/SD

*[Signature]*  
ED/W

*[Signature]*  
ED/ETM

and shall be got approved from the concerned Sr. DSTE/DSTE or Sr. DEE/DEE and also from the concerned Dy. CE/C for new lines and from the concerned Sr.DEN for all other projects including doubling GC etc., to avoid possible damage in future. Such approval shall be granted within 15 days of the submission of the request.

13. The works of excavating the trench and laying of the cable should proceed in quick succession, leaving a minimum time between the two activities.

14. In case damage is caused to OFC/Quad cable ~~or Signaling cable~~ during execution of the work, the contractor is liable to pay a penalty for damaging the cable. Penalty shall not be levied in case of the following:-

- (i) Detailed cable route plan as per clause C-1 not provided by concerned department or cable is not protected as per laid down procedures.
- (ii) The alignment of the cable does not tally with the information provided to the contractor.
- (iii) The cable depth is found to be less than 800 mm from normal ground level.
- (iv) No representative of S&T department/RailTel was available at site guarding the cables on the fixed pre determined date and time.

15. Penalty to be imposed for damages to cable shall be as under:-

Cable damaged	Penalty per location
Only Quad cable or Signaling cable	₹ 1.0 Lakh
Only OFC	₹ 1.25 Lakh
Both OFC & Quad	₹ 1.5 Lakh
Electrical Cable	₹ 1.0 Lakh

Necessary debit in this regard shall be raised on the department undertaking the work who shall in turn levy the penalty on the defaulting contractor. S&T department shall raise the debits in case of damage to OFC or Quad or Signaling cable and Electrical department shall raise the debits in case of damage to Electrical cable.

16. Railways will not lodge FIR with RPF in cases of works being executed by authorized contractors of Railways who have been duly permitted to execute the works in accordance with this JPO. Joint note by the supervisors of the concerned department shall be prepared and the responsibility of the cable cut should be decided without involving RPF. The joint note deciding the fact whether the contractor should be penalized shall be completed in a day's time from the occurrence of cable cut.

In all other cases, when the cable is cut by an agency that was not permitted to execute any work, FIR should be lodged with RPF.

*[Signature]*  
ED/M

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ED/CEP


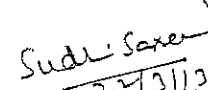
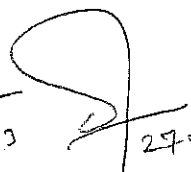
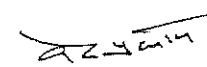
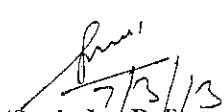
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17. While giving permission for taking up the works, concerned departments may note that earthwork by engineering contractors will normally be done by machines except in a few isolated locations where the quantity of earth work is very less.
  18. Railways shall make necessary correction in their future contract so that this JPO can also be enforced contractually.
  19. In case of damage to OFC, RailTel should be paid 5/6<sup>th</sup> of the penalty recovered. RailTel shall raise demands on the S&T department in this regard.
  20. All types of signaling & OHE bonds i.e. rail bond, cross bond and structure bond shall be restored by the contractor with a view to keep the rail voltage low to ensure safety of personnel.
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21. Above joint circular shall be applicable for construction as well as open line organisation of Engineering, S&T & Electrical.
  22. S&T cable and electrical cable route plan should be prepared by the concerned S&T and Electrical officers respectively and got approved as stipulated in para C-12 before undertaking the work. The completion cable route plan should be finalized block section by block section as soon as the work is completed.
  23. All cable laying works shall be executed as per laid down technical specifications, such as protection measures/protective cover, compaction of refilled material etc.

 (Rajeev Sharma) Exec. Dir. Signal Devel.	 (S K Saxena) Exec. Dir. Elect. Enery (M)	 (Shobhan Chaudhuri) Exec. Dir. Telecom (Dev)	 (V P Dudeja) Exec. Dir. Works	 (Surinder Pal) Exec. Dir. Civil Engg.(P)
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South Eastern Railway

Office of the  
Chief Admn Officer/Con  
Garden Reach: Kolkata-43

No.SER/Con/HQ/Plg/Works/Guidelines/1/Pt.II/080

Dated: 04.01.2017

To  
The CSTE, PCE, CEE, COM, CSO, CSC  
All DRMs - ADA, KGP, CKP, RNC

**Sub: JPO for under taking digging work in the vicinity of underground signaling, electrical and telecommunication cables.**

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Please refer to Para 6 of minutes of the Weekly Punctuality, Freight & Project Review Meeting by GM on 19.12.2016. Wherein, it was mentioned that a JPO should be prepared by Construction and Open Line regarding procedures to be adopted during construction activities and put up to GM for his approval before issue.

Accordingly, a JPO was prepared and put up to GM. While approving, GM has commented as below:

"Signing at concerned HOD's level is OK. If any HOD has any issue, he is supposed to consult his PHOD else it is presumed to be approved by the concerned deptt. i.e. PHOD also. Pl. issue and give copy to all concerned including the DRMs."

For kind information and necessary action.

Encl: As above.  
(copy of JPO)

*Kamal Baitha*  
41117  
(Kamal Baitha)  
Chief Engineer/Con(South)

Copy to:

- (1) CAO(Con) for kind information
- (2) All CEs/Con, CSTE/Con, CEE/Con, All Dy. HODs/Con(Field Units)  
(Encl. copy of JPO)

No : S&T/ Con/ Tech /Pol /84

GRC, Dated :16 .01.2017

Copy to: DY.CSTE/Con/CKP/TATA/ROU and DY.CSTE/Project/KGP/RNC and DSTE/Con/KGP and ASTE/Con/ADA for information and necessary action please.

Encl:- As above.

for Chief Signal & Telecom Engineer(Con)/GRC,

*16/01/17*  
*16/01/17* [P.T.O.]



8

South Eastern Railway

Joint Procedure Order for undertaking

Digging work in the vicinity of underground signaling, electrical and telecommunication cables.

No: SER/CON/HQ/PLG/Works/Guideline/1 Pt.II

Date: 28.12.16

Consequent to the discussions in the punctuality meeting, the following Procedure Order is proposed to be followed in South Eastern Railway Construction Organization for smooth working and to avoid damage to any signal/electrical cables.

1. Whenever, any Doubling/ 3<sup>rd</sup> line/new line projects or any other works which involves earthwork in digging are sanctioned, the route to be followed shall be given to DyCSTE/Con by DyCE/Con. DyCSTE/Con shall collect the cable route plan from SrDSTE/Open Line for existing cable which may be followed in the proposed alignment. Based on the same, a joint preliminary survey at the level of Dy.CSTE/Con, Dy.CE/Con & Dy.CEE/Con shall be conducted for the entire alignment to identify the presence of cables and the clear working area. The cable survey has to be done with the help of cable route locator so as to determine presence of cable/cables. Based on the preliminary survey whenever clear working areas/lengths are available, same shall be advised by DyCSTE/Con to Dy.CE/Con for undertaking the work after taking clearance form SrDSTE, if felt necessary. Based on this, cable clearance certificate shall be issued by S&T/Con supervisor to the Engineering/Con supervisor. The DyCE/Con shall give a copy of the clearance certificate to the executing agency for undertaking the earthwork in cutting/filling work. While giving the cable clearance a copy shall be marked to concerned Sr.DSTE also.  
Wherever cables are identified, Dy.CE/Con shall mark the centre line of the alignment of proposed track and edge of the cutting in such locations.  
Wherever it is not possible to give clearance, cable shall be diverted and such locations shall be clearly advised to Dy.CE/Con not to undertake the work unless cables are diverted.
2. Similarly, wherever any digging work is required for buildings, Dy.CE/Con shall advise to Dy.CSTE/Con in advance for furnishing the cable clearance. Dy.CSTE/Con shall collect the cable route plan/plans from SrDSTE in the particular area and DyCSTE/Con shall take action in consultation with SrDSTE for giving clearance within 7 days.
3. In no case digging work shall be started without a cable clearance from Dy.CSTE/Con.
4. Whenever digging work is to be done, Dy.CE/Con shall advise to Dy.CSTE/Con and so that in case any eventuality of cable cut, expeditious restoration can be done. Sufficient manpower is to be kept posted by S&T /Con for smooth execution of the project works at different points.
5. Railways will not lodge FIR when work is done based on the clearance certificate given to the contractors as per this JPO. Joint note by the supervisors of the concerned department shall be prepared and the responsibility of the cable cut should be decided without involving RPF.
6. Any cable cut cases which are not as per the above JPO will be dealt as per JPO No.17/2013 issued by Railway Board.
7. The above procedure is to be followed in case of electrical cables clearance also.

*Haral Rain*  
28/12/16  
CE/Con/South

*Aj - Con*  
28/12/16  
CSTE/Con

*SP - Con*  
28/12/16  
CSE

*Aw*  
28/12  
CEE/Con  
*and*  
21/1/17  
CEE/Con



दक्षिण पूर्व रेलवे  
SOUTH EASTERN RAILWAY  
मु.सि.व दू.सं.इंजीनियर का कार्यालय/गार्डनरीच/कोलकाता-43  
Office of the CSTE/Garden Reach/Kolkata - 43

सं./No. S&T/T/138/Pt.X/ 4017

दिनांक/Date: 22/12/2016

CAO/Con.,  
CSTE/Con. & CSTE/Proj.  
South Eastern Railway

Sub : OFC/Quad cable cut / damaged due to digging work along Rly. Track

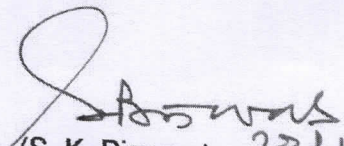
Ref : Rly Board's revised JPO /Telecom Circular No.17/2013 (Copy enclosed).

Guidelines have already been issued by Railway Board to safe guard S&T/Electrical cable vide reference above for undertaking digging work in the vicinity of underground S&T cable duly signed by Exec.Dir/Sig.Dev, Exec.DIR/Elec.Energy(M), Exec.Dir.Telecom(Dev), Exec.Dir.Works & Exec.Dir.Civil Engg(P).

GM/GRC has expressed his serious concern in punctuality meeting held on 19/12/16 for loss of punctuality of trains due to frequent cable cut incidences (copy enclosed).

You are requested to look into it and reiterate guidelines given in above JPO to concerned executing agencies for avoiding incidences of cable cut in future

Encl : As above.

  
(S. K. Biswas) 22/12/16  
Chief Sig & Telecom Engineer

0/c.