

**GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
(RAILWAY BOARD)**

No. 2006/Tele/TP/1

New Delhi,
Dated: 12.4.06

19

**The General Manager (S&T)
&
The General Manager(S&T)/Const.**

All Indian Railways.

Sub: Laying of OFC cable in the duct.

There are no precise policy guidelines available at present for laying of OFC/Quad cable in the duct/HDPE pipe on Indian Railways. This is resulting in large number of OFC/Quad cable cuts occurring due to construction works primarily alongwith tracks leading to prolonged disruption in telecom services as well as train operations. Besides, OFC cable directly laid/buried results in severe stress on the cable causing unwanted jitters, reflections and high value of attenuation thereby not permitting broader bandwidth. Laying of OFC cable in HDPE pipe/duct has following advantages:-

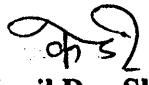
- (i) High-density Polyethylene (HDPE) Duct provides solid protection to the cable acting as a shield, thus, avoiding cuts.
- (ii) A trench with pipe/duct can be closed in advance and blowing of the cable is possible afterwards. Hence, by using ducts, investment on OFC can be suitably deferred without affecting progress of the work.
- (iii) In case of directly buried cable, each cut amounts to two additional splices in the cable. But in the case of duct blown cables additional length of cable provided in pits may be pulled to provide cable space for splicing, thus, reducing number of splices and hence improved performance.
- (iv) Use of HDPE ducts helps a great deal in improving of speed of construction work. Since ducts are available in drum length of 500 Mtrs., so there is no need of making a complete trench of equivalent to 3 Km. cable drum length. Additionally, the work of duct burial can be taken up simultaneously at several locations in the block section.
- (v) Experience have shown that availability of fibres in duct blown cables is distinctly superior to direct buried cables.
- (vi) Another advantage of ducting is multiple use of the cable path. In case of advent of superior cables in future, tedious exercise of trenching would not be

needed for duct blown cables. Existing cables can be de-blown from existing ducts and new cables re-blown into them resulting in faster and cheaper installation.

2. In view of the above, it has been decided to standardise laying of OFC/Quad cables in ducts in all future works. Sanctioned works where OFC laying is yet to be taken up, should also be suitably revised to provide for the duct.

3. This issues with the concurrence of Finance Directorate of Ministry of Railways.

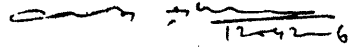
Please acknowledge receipt.


12-4-06
(Kapil Dev Sharma)
Exec. Director (Telecom Dev.)
Railway Board

No. 2006/Tele/TP/1

Dated: 12.4.06

1. FA&CAO, All Indian Railways.
2. FA&CAO(Const.), All Indian Railways.
3. Deputy Comptroller and Auditor General of India (Railways), 224, Rail Bhawan, New Delhi (with 46 spares).


12-4-06
For Financial Commissioner/Railways

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5. All Members of the National Council/Deptt. Council & Secretary, Staff side, 13-C, Ferozshah Road, ND. (with 90 spares).
5. The General Secretary, FROA (with 5 spares).
7. The Secretary Genl. RPF Association, R No. 549, Rail Bhawan, New Delhi. (with 5 spares).
7. The Secretary, RBSS Group 'A officers' Association (with 5 spares).
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10. The Secretary, , Railway Board Ministerial Staff Class II Officers Association. (with 5 spares).
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