

No. NHIII/P/66/76

Dated the 19th Nov., 1976

To

All State Governments and Union Territories
(Deptt., dealing with National Highways)

Subject : Laying and protection of coaxial and trunk telephone cables belonging to the Posts and Telegraphs Department on National Highways

From time to time the Ministry has issued instructions regarding laying of coaxial and trunk telephone cables along National Highways by the Posts and Telegraphs Departments. In supersession of all previous letters on this subject given below, I am directed to convey the following instructions in this respect for future guidance.

No. WI-43 (11)/64, dated the 30th June, 1965

No. WI-43 (10)/64, dated the 4th September, 1968

No. NHIII/Misc./181/73, dated the 8th January, 1974.

2. *Laying of Telephone Cables*

2.1 The coaxial and trunk telephone cables should ordinarily run along the road land boundary or at a minimum distance of 15 metres from the centreline of the nearest carriageway where the road land is wider. In special cases, where it may be necessary to avoid borrowpits or low lying areas, the cables could be allowed underneath the shoulders at a distance of 0.6 metre from the outer edge of the road embankment, provided the same were located atleast 4.5 metres away from the centre-line of the nearest carriageway and 1.2 metre below the road surface.

2.2 The following methods should be adopted for laying the cables on culverts and bridges :

- (i) The cables should be carried in a pipe of suitable size, or through a duct if existing.
- (ii) On arch type structures where cushion on top of the arch is 0.5 metre or more, the pipe carrying the cable may be buried on the top of the arch adjoining the parapet wall by digging close to the wheelguards. Where the thickness of the cushion is less than 0.5 metre, the pipe carrying the cable may be buried under the wheelguard masonry and the wheelguard rebuilt. In carrying out these operations, every precaution should be taken to see that no damage occurs to the arch of the structure.
- (iii) If neither of the methods mentioned above is possible, the carrier pipe should be clamped to the outside of the parapet wall of the culverts/bridges. If necessary, the pipe may be taken through the parapet wall at the ends where the wall diverges away from the road.
- (iv) If the method mentioned in para (iii) is also not possible, then the carrier pipe can be fixed on top of the road kerb close to the inside face of the parapet, by means of clamps using Raval plugs and wood screws of small diameter bolts, without damaging the concrete, and limiting the external diameter of the pipe to 7.5 mm. This should be done with the specific permission of the State Chief Engineer, and under the close supervision of the Road officials.
- (v) For all major bridges of 60 metre or more in length to be constructed in future on National Highways, the Posts and Telegraphs Department should be consulted for ascertaining their requirements in the form of ducts etc. to be provided on these bridges.

2.3. Repeater stations, if any, should not be less than 15 metre from the centre-line of the nearest carriageway and so located as not to obstruct vision of the motorists. Such stations may be enclosed by a fence placed at a distance of 3 metre or less around the station cabin, subject to

the condition that no part of the fence is within 6 metre of the centre-line of the nearest carriageway.

3. *Conditions for According Approval*

3.1. Provided the conditions mentioned in paras 2.1 to 2.3 are fulfilled, the State Government may authorise the State Chief Engineer to grant permission for laying of the cables under intimation to this Ministry. Each case of permission should, however, be subject to the Posts and Telegraphs Authorities agreeing to the following obligations :

- (i) The Posts and Telegraphs Authorities will notify the concerned Executive Engineer at least 15 days in advance before digging trenches alongside the road.
- (ii) Adequate arrangements for cautioning the traffic by way of caution boards during day time and danger lights at night will be provided by the Posts and Telegraphs Department.
- (iii) Each day the extent of digging trenches should be strictly regulated so that cables are laid and trenches filled up before the close of the work that day. The filling should be completed to the satisfaction of the Executive Engineer in charge.
- (iv) Posts and Telegraphs Department shall indemnify the Road Authority from all the damages, if any, due to the digging of trenches for the laying of the cables.
- (v) If the Road Authority considers the shifting of the cables, repeater stations fences etc. necessary for public purposes, the Posts and Telegraphs Department will carry out the required shifting at their own cost within a reasonable time (not exceeding 90 days) of the intimation given to them by the Road Authority.

4. *Protection of telephone cables during maintenance/reconstruction of the road*

4.1. While carrying out improvements to National Highways specially where widening/reconstruction of existing minor bridges and culverts or improvement of geometrics is involved, damage might inadvertently be caused to the cables already laid in position. It is, therefore, necessary that all improvement works on roads be so planned and executed that there is little change of damage to cables to the Posts and Telegraphs Department. The following precautions should be taken to ensure this :—

- (i) Before taking up any improvement work of the roadway/cross-drainage structure, it should be verified in advance if any cable of the Posts and Telegraphs Department exists at the particular location. It is understood that route maps indicating location of the cables are being periodically supplied by the field units of the Posts and Telegraphs Department to the State Public Works Department Executive Engineers/Deputy Engineers concerned. Where this is not so, the Executive Engineer of the Public Works Department should consult his counterpart in the Posts and Telegraphs Department. A list of Posts and Telegraphs Officers to be contacted is enclosed. for information, see Annexure 2.
- (ii) In situations where Posts and Telegraphs cables are involved, the Executive Engineer Public Works Department should get in touch with his counterpart in the Posts and Telegraphs Department and draw up an agreed programme for the execution of works so that the latter could make suitable arrangements for guarding the cables. The Posts and Telegraphs units would be expected to inspect, guide and to ensure that the time table set by the Public Works Department authorities for the completion of works is in no way upset.
- (iii) At locations where the cables have to be relaid, the Posts and Telegraphs Department will do the required shifting vide para 3.1 (iv) and (v) above.
- (iv) Where the Public Works Department gives permission to other departments like Irrigation, Electricity or Railways to dig a stretch of the National Highways having Posts and Telegraphs cables, timely intimation of this must be given to the concerned Posts and Telegraphs officers so that they could depute their staff to guard the cable while the works are being carried out.

5. It is requested that these instructions may be carefully followed in future and circulated among all officers in your department concerned with National Highways works.

ANNEXURE 2

LIST OF P & T OFFICERS TO BE CONTACTED FOR PROBLEMS CONNECTED WITH THE COAXIAL CABLES AND FOR PERIODIC MEETINGS BETWEEN THE PUBLIC WORKS DEPARTMENT STAFF AND THE P & T UNITS AT VARIOUS LEVELS

EASTERN REGION : Regional Manager, Maintenance, P & T, Calcutta.

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| (a) Divisional Engineer Telegraphs
(Coaxial Maintenance), Asansol. | Assistant Engineer (Coaxial Maintenance) P & T
at Asansol Barhi, Sassaram, Patna, Varanasi. |
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NORTHERN REGION : Regional Manager, Maintenance, P & T, Kidwai Bhavan, New Delhi.

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| (a) Divisional Engineer Telegraphs
(Coaxial Maintenance), Kanpur. | Assistant Engineer (Coaxial Maintenance) P & T
at Allahabad, Kanpur, Lucknow, Mainpur, Agra. |
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| (b) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Bareilly. | Assistant Engineer Coaxial Maintenance, P & T
at Sitapur, Shahjahanpur, Bareilly, Moradabad, Hapur |
| (c) | Divisional Engineer Telegraphs
(Coaxial Maintenance), New Delhi. | Assistant Engineer Coaxial Maintenance, P & T
at New Delhi, Aligarh. |
| (d) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Ambala. | Assistant Engineer Coaxial Maintenance, P & T
at Meerut, Muzaffarnagar, Saharanpur, Ambala, Ludhiana. |
| (e) | Divisional Engineer Telegraphs
(Micro Wave Maintenance), Jullundur. | Assistant Engineer Coaxial Maintenance, P & T
at Jullundur, Amritsar. |
| (f) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Patiala. | Assistant Engineer Coaxial Maintenance, P & T
at Patiala, Bhatinda, Ferozepur. |
| (g) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Jaipur. | Assistant Engineer Coaxial Maintenance, P & T
at Jaipur, Beawar, Udaipur, Himmatnagar,
Jodhpur, Nagaur, Bikaner. |

WESTERN REGION: Regional Manager, Maintenance, P & T, CTO Building, Bombay

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| (a) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Ahmedabad. | Assistant Engineer Coaxial Maintenance, P & T
at Ahmedabad, Baroda, Surat, Bulsar. |
| (b) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Rajkot. | Assistant Engineer Coaxial Maintenance, P & T
at Surendranagar, Rajkot, Dhoraji, Junagad, Porbandar. |
| (c) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Bombay. | Assistant Engineer Coaxial Maintenance, P & T
Bombay, Thana, Poona, Karad, Kolhapur and Belgaum. |
| (d) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Nasik. | Assistant Engineer Coaxial Maintenance, P & T
at Nasik, Jalgaon, Manmad and Dhulia. |
| (e) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Nagpur. | Assistant Engineer Coaxial Maintenance, P & T
at Bhusaval, Akola, Amraoti and Nagpur. |
| (f) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Secunderabad. | Assistant Engineer Coaxial Maintenance, P & T.
at Secunderabad, Narkatpalli, Kodad and Khammam. |

SOUTHERN REGION: Regional Manager, Maintenance, P & T, Madras

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| (a) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Bangalore. | Assistant Engineer Coaxial Maintenance, P & T
at Hubli, Devangere, Sirsi, Bangalore and Vellore. |
| (b) | Divisional Engineer, Telegraphs
(Coaxial Maintenance), Madras | Assistant Engineer Coaxial Maintenance, P & T
at Madras, Villipuram, Trichy, Karur, Coimbatore,
Dindigul and Madurai. |
| (c) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Ernakulam. | Assistant Engineer Coaxial Maintenance, P & T
at Trichur, Ernakulam, Kottayam, Quilon and Trivandrum. |
| (d) | Divisional Engineer Telegraphs
(Coaxial Maintenance), Vijayawada. | Assistant Engineer Coaxial Maintenance, P & T
at Vijayawada, Guntur, Nellore, Ongole and Naidupet. |