

48 (19)

E.C.Railway

(S&T Department)

Policy Circular No-6

Dated: 01.04.08

Monsoon Precautions to be taken before hand for various telecom equipment

U / G Cables (Quad, PIJF, RE and OFC):

- Ensure that the Route Plan is current and updated, clearly showing the positions of joints and the date they were made. Old joints / joints not properly made are more susceptible to failure.
- Foot patrolling of the cable route is required to be done to ensure safety of the cable specially:
 - In soil erosion prone areas
 - Areas prone to water logging
 - Approach to bridge / culverts
 - On the bridge / culverts
 - Road / track crossings
 - Construction sites

Suitable measures be taken to strengthen the weak spots, if any.

- Joint(s) are the weakest link that fails during monsoon. Ensure that temporary joint(s), if any, are made permanent without further delay. Other joints may also be checked to see that they are watertight.
- Ensure that all Emergency Sockets are intact and well protected to prevent water ingress through them into the joint.
- Armour of the cable is made through using metallic flat / thick wire to maintain continuity of it at joints.
- Insulation parameters of the cables are measured and bad / borderline sections taken up for identification / localization and rectification.
- Surge and lightening protection of appropriate type is used at the termination points.
- Cable earth is of proper type and cable armor is connected firmly to it.

O/H Alignment:

- Foot patrolling of the cable route is required to be done to ensure safety of the O/H alignment specially:
 - areas prone to water logging
 - Approach to bridge / culverts
 - On the bridge / culverts
 - Road / track crossings
 - Construction sites

Suitable measures be taken to strengthen the weak spots, if any.

- Ensure that temporary joint(s), if any, are made permanent without further delay.
- Ensure that all leaning poles are made erect without further delay.

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- Ensure that broken insulators, if any are replaced without further delay.
 - Surge and lightening protection of appropriate type is used at the termination points.

M W / UHF:

- Ensure that the Tower and Equipment Earth are separate and of proper value.
- Ensure continuity of the lightening arrester rod/wire of the tower, ring earth wire, wire from earth pipe to the bus bar in the equipment room and from bus bar to all equipment racks.
- Ensure running on battery only.
- Ensure that electric supply connection is proper and there is no leakage.
- Ensure that Surge and lightening protection of appropriate type is used at the equipment

Exchange:

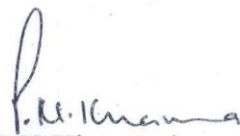
- Ensure separate and proper earthing for electrical (less than 10 ohm) and Exch. equip. (Less than 01 Ohm).
- All external subscriber line should be protected by IPM.
- SMPS/Charger protection mode should be of proper rating.
- Electrostatic shielding of exchange equipment for large capacity should be ensured.

Control communication Eqpt. at station:

- Ensure separate earthing for communication equipment including VHF set.
- Batteries for VHF Sets should be in sound condition.

PRS/UTS Equipment at Station:

- Ensure separate earthing for power line (< 10 Ohms) & Communication line (< 2 Ohms).
- Ensure appropriate surge & lightening arrester on communication line
- Ring earth at nodal hubs.


 (P.N. Khanna)
 CCE/ECR

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