Draft new Recommendation ITU-T K.89 (K.injury)

Protection of persons inside a structure using telecommunication services provided by metallic conductors against lightning - Risk management

Summary

Recommendation ITU-T K.89 gives the methodology for evaluating the need to protect users of telecommunication equipment in structures and that of building occupants related to the telecommunications installation.

This method is based on the risk assessment: protection measures are necessary when the risk is greater than the tolerable risk. A maximum value of the tolerable risk is suggested.

The risk is evaluated using the lightning risk components which can be a source of injury to telecommunications service users and building occupants (lightning flashes direct to the line or directly to the structures connected at the ends of the line).

The risk assessment is according to Edition 2 of [IEC 62305-2]. A simple risk assessment is provided to enable the telecommunications network operator to decide when to install GDTs at the Point of Entry of the telecommunication line into the structure independent of the structure attributes. This Recommendation can be used together with Recommendation ITU‑T K.47, which provides a more accurate risk assessment of lightning flashes direct to the telecommunication line and [IEC 62305‑2], which provides the risk assessment of lightning flashes to the structure.