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APPRAISAL OF GROUNDING SYSTEM PERFORMANCES OF 400 KV LINE DUBROVO - STIP

ABSTRACT

Step and touch potentials at transmission line structures are sometimes important parameters in the design of the grounding system. To have confidence in conventional (deterministic) methods of potential calculation, worst-case values of the design parameters must be assumed. This often leads to overly pessimistic results and designing too much expensive grounding devices. A probabilistic approach enables more realistic values od risks to be obtained with the same degree of confidence. In this paper is presented procedure for assesment the real risk of dangerous touch and step voltages. In the second part of the paper is analyzed and presented the probability distribution and risk of dangerous step and touch potentials along the 400 kV transmission line Štip - Dubrovo.

Keywords: transmission line, grounding system, risk, dangerous step and touch voltage.