Thesis Title   Transient Analysis of Grounding System
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Year   1998

Abstract

This thesis ,presents about analytical method to determine the transient performance of grounding grids in case of lightning, complete with showing AC. Substation grounding is designed following ANSI/IEEE std. 80-1986. For transient analysis method , considered 2 element,conductance(G) and inductance (L) for creation mathematics ground grid modelled by node equation . In ground grid model test separated two case, first : Impulse current injected in conner of grid model , Second : injection in center . It has been found from analytical that in first case, the voltage induced are the highest, and very close with E_{mesh} value of design method ANSI/IEEE 1986, that is the otherhands for safety showing of grounding grid of substation .