

SUMMARY

I. Subject

A Study on the Electrical Safety Investigation in the Electrical Facilities on the Road and Temporary Power Installation

II. The objective and necessity of this research and development

In this modern age which electric energy is the fundamental source of energy in the industry electric shock hazards are unavoidable. Even though numerous efforts, time, and money have been invested to prevent such electric shock hazards, the number of electric shock hazards are still produced in various electrical equipments and facilities.

III. The contents and province of the research and development

This study is concerned with analysis of electrical shock hazards in the electrical facilities on the road and temporary power installation. It is that streetlight, public phone, compressor of air conditioner, standing signboard, and vending machine is used as electrical facilities on the road in this study. The numerous experiments are conducted to simulate electrical shock disaster possible to outbreak in the electrical facilities on the road and temporary power installation. And the experiment is conducted in dry and submerged situation of electrical facilities on the road. Also electric potential is measured by measuring instrument when have a short in electrical facilities on the road and temporary power installation controlling earth resistance like 50 Ω and 250 Ω . The electrical facilities on the road and temporary power installation is leaked by artificial means. When portable electrical appliance is sunk in water electrical potential is measured to analyze electrical shock hazard. In order to assess electrical shock hazard by leaked wire in a state of removed covering electrical potential is measured.