

Proposal of a Maintenance Management Method Focusing on Internal Structure of Polymer Insulators and on Their Aging Deterioration Phenomena

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Since polymer insulators are compact and lightweight, they have excellent workability. In addition, the water repellency of the rubber of the outer cover contributes to improving resistance against stains caused by sea salt and the like. These characteristics have led to expansion of introduction to electric railways recently. However, there is a problem, so far, that a maintenance management method for polymer insulators has not been established. Therefore, we have investigated the causes of polymer insulator accidents to propose a method for inspecting polymer insulators. In addition, we have investigated the structure and deterioration conditions of the polymer insulators removed from actual equipment. This paper proposes a maintenance method of polymer insulators on the basis of the results of these investigations.