

# 中文摘要

氧化鋅避雷器其特性執行力於運轉過程中，常遭受突波電流、週遭環境因素如表面污染、水氣滲入、自然老化及溫度效應退化有絕對關係。如何掌握避雷器特性之良好與否，為運轉、維護部門所需解決之問題。

氧化鋅避雷器維護方式有突波計數器、總洩漏電流檢測、電阻性洩漏電流檢測、紅外線溫度檢測及停電絕緣檢測等多種方法，這些維護方法中並無優劣之分；而在於各種維護方法應用是否得宜。

本文將整理與評估避雷器之性能，介紹傳統維護檢測與預防維護檢測方法之差異，由送電中的避雷器經實際檢測，以研究預防維護量測方法之方便性及有效性。

## 英文摘要

The arrester, type zinc oxide, could be deteriorated by suffering from surge in power system and its ambient conditions such as pollution contacts on its surface, moisture penetration, temperature effects and long service time...etc,. Electrical engineers, work for substation, are responsible to keep eyes on the characteristics and performances of arresters .

More important thing is to decide when to replace a busted arrester with a new one before a power fault occurs to the power system. There are several measurements available for the maintenance of zinc oxide arrester: surge counter, detection of total current leakage/resistant current leakage, temperature detected by infrared instrument and insulation inspection for arresters on a dead line .We would rather to say an appropriate and experienced technique utilized in inspecting the arrester is more important than to say which inspection way is better than another.

By describing and evaluating the performances of arresters in substations and comparing its differences between traditional and modern preventive inspections, we acquire this paper with experiences from the measurements of local arresters in service.