

Deterioration Indication Method of Arrester for High Voltage Distribution Line

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High voltage distribution lines contribute to supplying stable power to important facilities such as signaling system. In the lines, arresters are provided every a certain distance to avoid system trouble by abnormal voltage by the thunder surge etc. However, since any changes are not seen in the appearance when the arresters equipped in non-grounded lines deteriorates, a long time might be required to find fault point resulting in long downtime of the system. Therefore, to reduce the downtime, an indicator for deterioration of the arrester using a microcomputer has been developed. The indicator always monitors leak current to ground from the arrester to indicate the mark "under operation" when the current exceeds preset minimum operating current and its duration time. This paper also reports the test results of the performance of the indicator and the protection coordination test with protection relay in substation.