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论文

1000千伏特高压线路复合绝缘子鸟害原因分析及对策

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摘要:

复合绝缘子作为防污闪的主要设施, 在中国首个特高压工程1000kV晋东南~南阳~荆门特高压交流试验示范工程线路中得到了大范围应用。在2008年10月份的例行检查中, 先后发现500余支复合绝缘子被鸟啄食、侵害伞群及芯棒护套的情况, 将直接威胁特高压电网的安全运行。运行单位对复合绝缘子鸟害情况进行了系统的调研和分析, 结果发现主要原因与鸟数量的增多, 线路是否带电, 复合绝缘子的不同伞形和悬挂方式等因素有关。最后, 为充分保障输电线路的可靠运行提出了相应的措施和建议。

关键词:

Cause Analysis and Countermeasures of Bird Damage to Composite Insulators of 1000kV Transmission Lines

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Abstract:

As a very important anti-pollution flashover measure, composite insulators are widely used in the first 1000kV UHVAC power transmission project from southeast Shanxi Province Via Nanyang in Henan Province to Jingmen in Hubei Province. In October of 2008 it is found in the maintenance of the UHV transmission lines that more than 500 composite insulators are pecked, this phenomenon will directly threatens the secure operation of power system. Based on the investigation and analysis on the bird damage to 1000kV UHVAC power transmission line composite insulators, the main cause of bird pecked insulators is considered on the amount of bird increasing too much, whether or not energized, different shed shapes of composite insulators and suspension types and so on. To adequately ensure the reliable operation of transmission line, some protect measures and advices have been presented in this paper.

Keywords:

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