

An algorithm for CP effectiveness evaluation: the Italian KT and its possible application in other countries

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ABSTRACT:

Remote monitoring for cathodic protection introduces the possibility of performing a detailed investigation on cathodic protection, by obtaining measurement every second during the whole days and the whole weeks, thus allowing to monitor potentials evolution in real time on many points at the same time in a CP system.

This means that cathodic protection technicians have to deal with a huge amount of data: for this reason a software able to analyze all these data and automatically highlight critical conditions for CP is fundamental to obtain the best benefits from remote monitoring.

In this perspective, an algorithm able to give a global evaluation for cathodic protection effectiveness of a CP system, resulting in a simple number for the whole system, would be very useful to have a general understanding of CP behavior and identify possible critical condition without having to analyze any single measure received by any single remote monitoring device.

In Italy, all gas distribution and transmission companies have to demonstrate every year to National Authority the effectiveness of the CP applied to their pipelines by calculating the "KT" evaluation.

In this paper, the main principles of Italian KT will be presented, and the possibility of its application also to other countries will be discussed.