DIFFICULTIES WITH THE ASSESSMENT OF THE CORROSION RISK OF UNDERGROUND STEEL PIPELINES

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Formulated in three standards: EN 12954, EN 15280 and EN 50162, the criteria for effective protection of pipelines against corrosion are quite easy to execute.

However, if the underground pipeline is exposed not only to corrosion caused by the aggressiveness of the soil, but also to the effects of induced alternating currents or dc stray currents, evaluation of the effectiveness of pipeline protection against corrosion can be complicated.

In practice, in some cases, it may be impossible to simultaneously meet the criteria from different standards and the assessment of the effectiveness of pipeline protection is ambiguous.

It such case it may be necessary to choose which of the criteria should be prioritized.

This paper discusses a real field case of an underground pipeline exposed to the a.c. currents and problems with simultaneously fulfilling the requirements of the EN 12954 and EN 15280 standards.