

## **Problems with the assessment of interference of high-voltage lines on underground pipelines with very good coatings**

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When evaluating a.c. corrosion of underground pipelines, soil resistivity values and quality of pipelines coatings are of significant importance.

Of course, both the high soil resistivity and the excellent quality of pipeline coating significantly reduce the risk of a.c. corrosion. However, excellent coating facilitates the transfer of the a.c. voltage induced in the pipeline, sometimes even for long distances.

However, on the distance of several dozen kilometers away from the intersection of the high-voltage line with the pipeline, the quality of insulation on the pipeline may be significantly worse and the soil resistivity may be low. This is often the case for sections of the pipeline laid in the HDD technology, e.g. under the rivers or lakes.

The article presents the risk of a.c. corrosion for such sections of the pipeline, for which bentonite with resistivity of 2-3  $\Omega\text{m}$  was used to facilitate pulling of the pipes.

In such situations, in places of coating defects, even a low induced voltage may cause an outflow of a.c current with high density.