

## Effect of Soil Corrosion in Failures of Buried Gas Pipelines

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**Abstract :** In this paper, a brief review of the corrosion mechanism in buried pipe and modes of failure is provided together with the available corrosion models. Moreover, the sensitivity analysis is performed to understand the influence of corrosion model parameters on the remaining life estimation. Further, the probabilistic analysis is performed to propagate the uncertainty in the corrosion model on the estimation of the remaining life of the pipe. Finally, the comparison among the corrosion models on the basis of the remaining life estimation will be provided to improve the renewal plan.

**Keywords :** corrosion, pit depth, sensitivity analysis, exposure period

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