

## Near-Neutral pH Stress Corrosion Cracking of Pipelines

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Oil and gas transmission buried pipelines are susceptible to Near-neutral pH Stress Corrosion Cracking (SCC), which is categorized as one of the environmental forms cracking. Near-neutral pH SCC is a time dependent cracking process, which involves both corrosion and mechanical driving force, and can lead to pipeline leak or rupture. In recent years, there have been great achievements in better understanding this form of Cracking. However, the data is widely spread. This paper provides a unique update on near-neutral pH SCC, focusing on the science and fundamentals behind its initiation and growth mechanisms. In this regard, a brief summary about general characteristic of near-neutral pH SCC obtained from field observations, followed by recent updates on near-neutral pH SCC initiation and growth mechanisms is provided. Finally, current understanding and future trends in prospective of authors is presented.

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