

Investigations of Stress Corrosion Cracking in a Gas Pipeline

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Stress Corrosion Cracking (SCC) may be a serious problem in gas pipelines. This work studies the tensile properties, hardness, texture, and residual stress profiles in two nominally identical sections of adjacent pipe with similar environment and coating, one of which was affected by SCC. The results show changes in texture, residual stress, plastic strain, and hardness at the pipe surface which may be responsible for the altered susceptibility to SCC.

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