

Investigating Stress Corrosion Cracking Problem in Nuclear Power Plants

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This study aims to investigate the issues related to stress corrosion cracking (SCC) in nuclear power plant systems. The study will explore the relationship between materials and environmental variables which cause the onset and progression of SCC in different materials commonly used in piping systems and related infrastructure.

Stress corrosion cracking is a significant issue in the nuclear power industry, leading to costly downtime and repair, and can have serious safety implications. The findings of this study can provide insights into the mechanisms underlying SCC and inform the development of strategies for preventing and mitigating its effects on piping systems.

By understanding the factors that contribute to SCC and how they can be mitigated, industries can develop strategies to prevent corrosion-related failures and ensure safe and reliable operation. The results of this study will contribute to the ongoing efforts to improve the reliability and safety of nuclear power plants and other industries that face similar corrosion-related challenges.

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