

## **Evaluation of Stress Corrosion Performance of Nuclear Power Key Materials and Its Engineering Application**

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**Abstract:** By introducing and analyzing typical cases of stress corrosion failure in nuclear power plants, summarize the reasons for stress corrosion of stainless steel and high-strength steel in nuclear power plants. Discuss the stress corrosion cracking behavior and influencing factors of stainless steel pipelines and high-strength bolts in nuclear power plants, establish a stress corrosion evaluation method, and apply it in engineering practice.