

**DESIGN AND ANALYSIS OF CONNECTIONS
AND DISCONTINUITIES IN NUCLEAR ENGINEERING:
A REVIEW**

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SUMMARY

Joints, openings and other structural discontinuities are unavoidable and necessary features in any complex structural system like a nuclear reactor system. These are to be designed considering optimal combinations of materials, manufacturing processes, maintenance, utilisation, ease and economy in assembly and transportation, etc.

The discontinuities are sources of stress concentrations and regions of leakage in the system. Both aspects are of special significance in a nuclear reactor system. Simple techniques can often improve the design and simplify the analysis.

In this review an attempt is made to classify the different types of joints and the factors influencing their behaviour and the methodology of analysis and design techniques currently available. Such a critical review of current methods of design and analysis naturally leads on to a recognition of directions and areas where further effort is indicated and where it is likely to be most beneficial.