framatome

ENCAPSULATION – FOR RELIABLE FUEL CONDITIONING

Innovative Fuel Field Services solutions, proven in practice

Framatome's technology for the safe long-term storage of defective fuel rods, applicable to LWR fuel assemblies, meets nuclear power plant requirements in a safe and sustainable manner.



Challenge

The management of defective spent fuel is becoming a significant challenge for nuclear power plant operators. As a plant approaches the end of its operating lifetime, the owner seeks long-term solutions for fuel relocation. While the storage of fuel assemblies containing only sound fuel rods is routine, assemblies containing defective rods require specific handling, remediation, and conditioning to ensure safe storage or transport.

Solution

Framatome provides a technology that safely encloses defective fuel rods for dry, long-term storage. Single-rod encapsulation and the associated capsule-canister designs offer flexibility for subsequent handling, including transport, storage, and preparation for decommissioning activities.

Customer benefits

- Encapsulation provides a solution for defective fuel rods as a precondition for starting dismantling and decommissioning activities.
- It offers significant economic advantages, as capsule canisters can be loaded together with fuel assemblies in a single transport or storage cask.
- Single-rod encapsulation also provides flexibility for further handling of defective fuel rods.

Framatome Solutions Portfolio
Fuel Field Services

Your performance
is **our** everyday **commitment**

Contact: g-fra-sales-fuel-services@framatome.com
www.framatome.com

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