

Boron Monitoring

Framatome uses Inductively Coupled Plasma Mass Spectrometry (ICPMS) technology to monitor boron balance and increase fuel performance

Challenge

Neutron reactivity is controlled through the B-10 isotope in boric acid. However, due to burn-up, the B-10 content of the mixture is depleted during the operating cycle. As a result, plants need to periodically verify the B-10 fraction of new and recycled boric acid sources to ensure adequate reactivity control.

Solution

Framatome's chemistry experts utilize Inductively Coupled Plasma Mass Spectrometry (ICPMS) technology to verify the exact percentage of isotopic B-10 in reactor coolant samples as it relates to other boron isotopes. Highly specialized analysis techniques backed by multiple quality checks deliver results you can count on.



Customer benefits

- **Ensures** exact balance of boron enhances fuel performance
- **Removes** uncertainties regarding the addition of boric acid to your reactor coolant
- **Safeguards** against excess reactivity in reactor core

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is **our** everyday **commitment**

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