Studsvik

Fuel Qualification

FUEL & MATERIALS TECHNOLOGY

Bringing Your Fuel Design to The International Marketplace

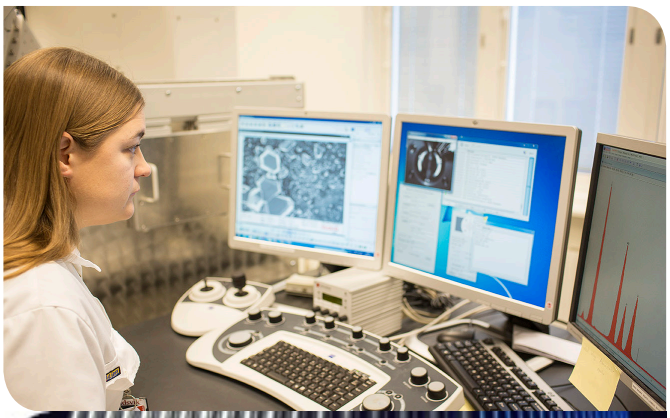
Studsvik's vast expertise in all facets of fuel qualification testing and analyses, as well as extensive experience in formal licensing process submitted to several regulatory agencies worldwide, is now available to organizations developing new fuel designs for the international marketplace. Studsvik's expertise can provide significant cost savings and risk reduction and expedite the approval process.

Studsvik offers the entire fuel qualification service from beginning to end, from extensive physical testing and inspection, to computational analysis, formal documentation and support through the actual submittal process including attending actual meetings with the prospective regulatory agency. Alternatively, if your organization already has some of the capabilities required for fuel qualification and needs Studsvik to fill in the missing pieces, you can rely on Studsvik to work with you and combine your expertise with our own also providing significant cost savings and risk reduction.

"offer our customers significant cost savings and risk reduction"

When a new nuclear fuel design is introduced to the market an extensive set of tests and analyses is required in order to demonstrate the fuel meets internationally accepted safety standards. This testing and analyses can easily take several years to complete, if performed properly. Studsvik helps reduce risk of uncertainty in proper testing techniques and analyses because of our long history of successfully performing extensive testing and analysis associated with fuel qualification for multiple organizations throughout the world.

In addition using its internationally accepted Quality Assurance and Project Management programs expertise Studsvik can facilitate preparation and submittal of formal licensing documents needed for regulatory approval.



"We can help mitigate risks in fuel qualification by applying Studsvik's long and deep experience of fuel and material technology to the technical challenges of your fuel program" says, Art DiGiovine, VP Business Development New Markets, Fuel & Materials Technology."

Studsvik Fuel Qualification – Physical Testing

- Fuel Testing, Inspection, and Surveillance Post Irradiation Examination (PIE)
- World leading test capabilities of LWR materials
- Global customers representing fuel vendors, regulators, utilities and research organizations
- Extensive knowledge of in-pile testing of various fuel types and material
- Operating agent of OECD/NEA international program SCIP for 13 years

Studsvik Fuel Qualification – Computational Analysis

- General design criterion (GDC) 10 as part 10 CFR 50 App
- USNRC/NUREG 0800 Chapter 4
- Safety Analysis (neutronic, thermal-hydraulics, fuel performance, etc.)
- World leader in vendor independent neutronics software, licensed by regulators in multiple countries
- Linkage to accepted thermal hydraulics software used in safety analysis (RETRAN, RELAP, TRACE, etc.)

Studsvik Fuel Qualification – Licensing Process

- Accepted Quality Assurance Program (ISO-9000, NQA-1)
- Compliance with global quality and technical standards
- Full control to fulfil licensing authority requirements
- Well established process and planning management

Studsvik Fuel Qualification – Assessment Capabilities

- Fuel Damage
- Fuel Rod Failure
- Fuel Coolability
- Design Evaluation
- Analysis Calculations
- Testing, Inspection and Surveillance

Facts of Studsvik Fuel Qualification Capabilities:

- Physical examination and testing of more fuel types in than any lab in the nuclear industry
- Expertise in computational analysis required for safety analysis (radiation dose, neutronic, thermal-hydraulics, fuel performance, etc.)
- Formal international licensing submittal experience
- Compliance with global quality and technical standards (ISO-9000, NQA-1)
- Project management expertise for large-scale international contracts

Studsvik offers

- Culture of safety while maximizing value to our customers
- Proven track record of cost efficient solutions
- One of the leading Hot Cell laboratories in the nuclear industry
- One of the leading chemistry labs for fuel and structural materials analysis in the nuclear industry
- International transport of nuclear material expertise (physical packaging, licensing permit process, shipment)

"almost 70 years of Fuel and Materials Testing"

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Studsvik

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