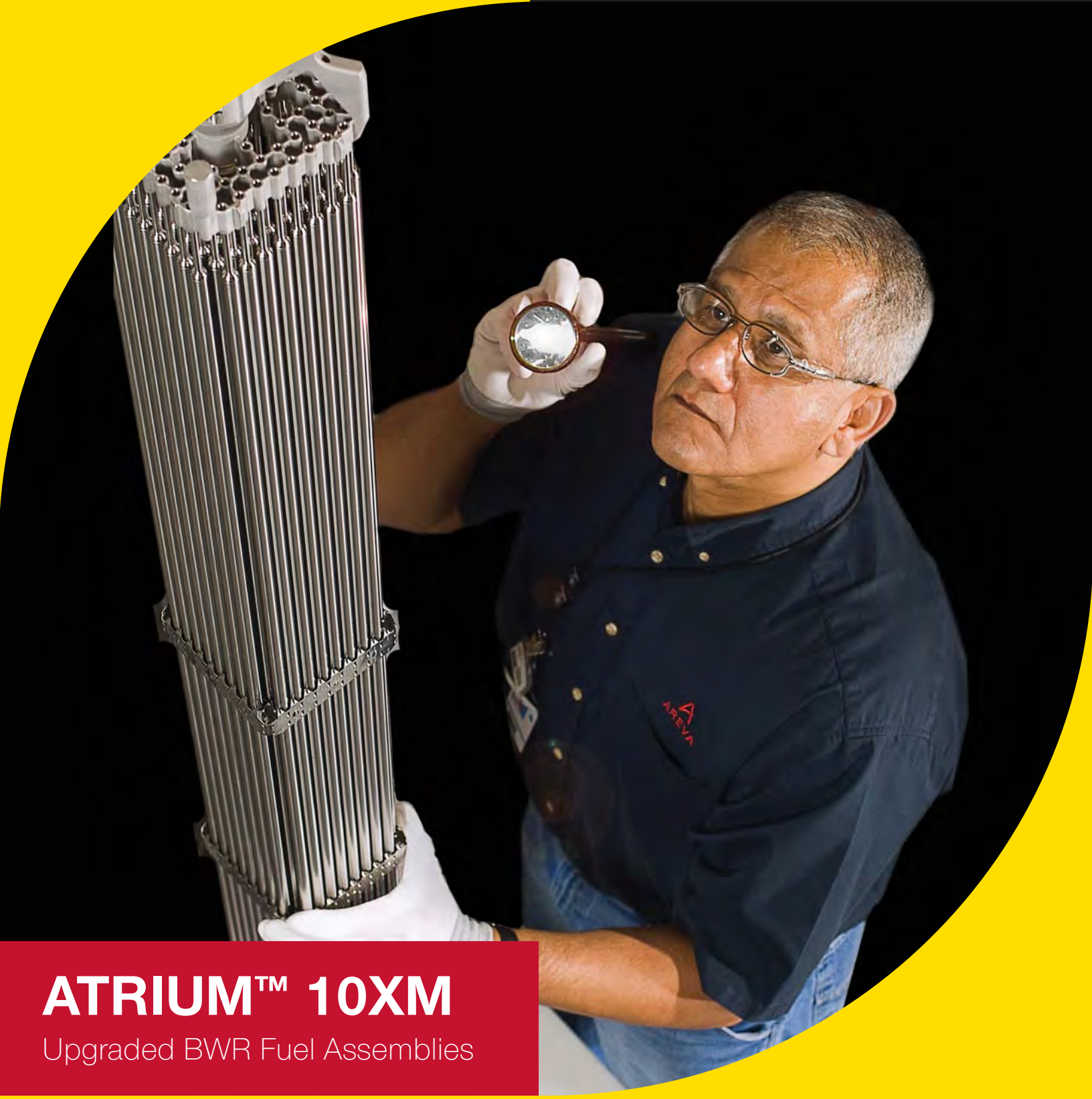


ATRIUM™ 10XM

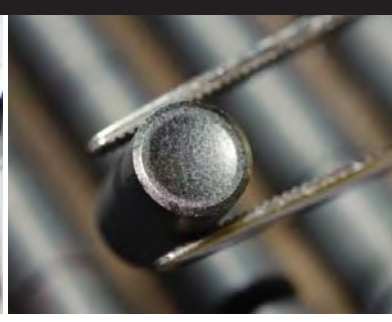
Upgraded BWR Fuel Assemblies

AREVA

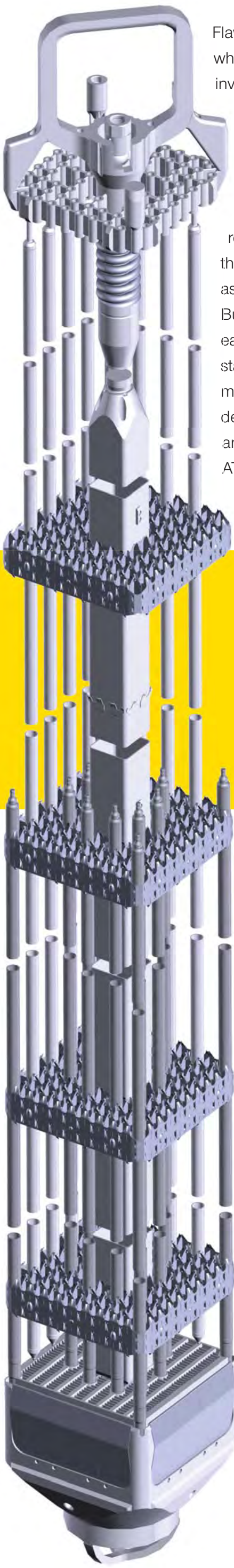
forward-looking energy

ATRIUM™ 10XM



Designed for **performance.** Built for **reliability.**



Flawless operation. Higher capacity factors. Efficient fuel utilization. We know what BWR operators expect from their fuel. You can count on AREVA to invest the energy needed to provide our customers with safe, reliable and dependable fuel. Our ATRIUM™ 10XM advanced BWR fuel has been designed to improve both the fuel efficiency and operating flexibility required to meet your power production needs.

The superior performance of the ATRIUM™ 10XM design is confirmed by reliable operation of multiple reloads in reactors worldwide and is based on the proven supply and operation of over 30,000 ATRIUM™ 10x10 fuel assemblies. Our refined manufacturing processes, such as our Lean Rod-to-Bundle Flow and Rigorous Foreign Material Exclusion Program, ensure that each ATRIUM™ 10XM fuel assembly meets specifications to the highest standards of control, accuracy and cleanliness. And due to its increased fuel mass and superior critical power performance, the ATRIUM™ 10XM design delivers significant fuel cycle cost savings in 18-month to 24-month cycles and uprate conditions while maintaining the proven reliability of the current ATRIUM™ 10 product line.

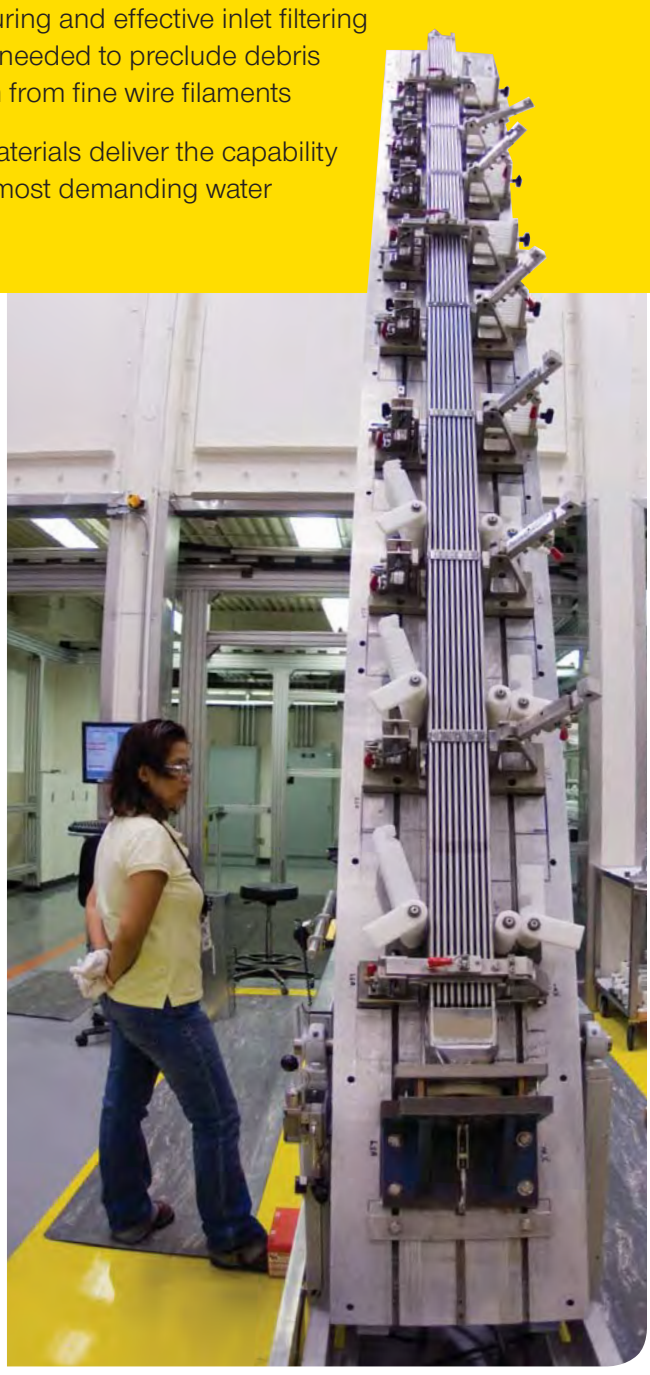
Zero failure operations

> Proven cladding design and defect-free pellets deliver the duty margin needed for high-capacity factor operations

> Debris-free manufacturing and effective inlet filtering deliver the protection needed to preclude debris fretting failures – even from fine wire filaments

> Corrosion resistant materials deliver the capability to operate under the most demanding water chemistry regimes





ATRIUM™ 10XM Highlights

- *Cladding thickness maintains proven thickness-to-diameter ratio*
- *Unique pellet end resistant to chipping; ensures optimal fuel duty capability*
- *Improved FUELGUARD™ filter*
- *Secure quick-disconnect end fitting allows rapid access with no loose parts*
- *Low pressure drop ULTRAFLOW™ spacer grid enhances critical power margin*
- *Low stress clip-in seal spring controls fuel channel leakage throughout fuel life*

More energy from your fuel

> Significant improvement in critical power capability allows cores to be loaded and operated in the most efficient configurations

> Low pressure drop design ensures full jet pump flow rates can be achieved for maximum rated-power operating length

> Increases cold shutdown margin through innovative geometry, avoiding the need for excess gadolinia and associated enrichment penalty

> Steady hot reactivity characteristics minimize the need for frequent control blade adjustments

> Increased fuel weight minimizes reload batch size requirements

Securely welded crown features strip liquid from the water channel surface to cool adjacent rods

As a world leader in nuclear power, AREVA in North America (AREVA Inc.) combines U.S. and Canadian leadership to provide utilities with proven expertise and uncompromising dedication to safety in every stage of the nuclear fuel cycle, reactor design and construction, and operating services.

AREVA also invests in renewable energies to develop, via partnerships, high technology solutions. Through the complementary nature of nuclear and renewables, AREVA's nearly 5,000 U.S. and Canadian employees contribute to building tomorrow's energy model: Supplying the greatest number of people with energy that is safer and with less CO_2.

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