

Westinghouse EnCore® Fuel:



Provides significantly **increased safety margins** in severe accident scenarios



The suite of EnCore Fuel products offers **economic benefits**



Accelerated delivery **timeline**



Superior design provides **enhanced fuel cycle benefits**



World's **largest supplier** of nuclear fuel with world-class partner network

On Dec. 2, 1957, Westinghouse changed the world when Shippingport, the first commercial nuclear power station in the U.S., came online. Today, Westinghouse is changing nuclear energy again, building on our legacy of innovation with our revolutionary new accident-tolerant fuel design, EnCore® Fuel.

Delivered in two phases, the initial EnCore Fuel product is comprised of coated cladding loaded with uranium silicide pellets, which set EnCore Fuel apart from other accident-tolerant fuel solutions because of uranium silicide's higher density and higher thermal conductivity. The reduced oxidation and hydrogen pickup of the coated cladding during normal operation (250° - 350°C) is intended to prolong

cladding life, provide enhanced resistance to wear and increase margins, allowing use of higher density pellets.

The coated cladding also supports extended exposure to high temperature steam and air (1300° - 1400°C) during a loss-of-coolant accident, reactivity-initiated accident and beyond-design-basis conditions.

The second phase of EnCore Fuel features silicon-carbide (SiC) cladding, which is being jointly developed with General Atomics. SiC is intended to offer significant safety benefits in beyond-design-basis accident scenarios, enabled by its extremely high melting point and minimal reaction with water.

While current Westinghouse fuel designs have operated extremely well under normal

plant conditions, any existing nuclear fuel designs can be challenged under beyond-design-basis severe-accident scenarios.

Having fuel that maintains its integrity in severe accident conditions? ***This changes nuclear energy ... again.***

The pursuit of accident-tolerant fuel is being carried out by an international, multidisciplinary, world-class network of research, design and manufacturing partners. Leveraging the breadth and depth of our resources, combined with U.S. Department of Energy awards, as well as utility funding, we are collaborating with respected industry partners to deliver EnCore Fuel to the market, with lead test rods of the coated claddings and uranium silicide pellets manufactured as soon as early 2019 and lead test assemblies in use by 2022.

ENCORE® FUEL WE'RE CHANGING NUCLEAR ENERGY ... AGAIN

Westinghouse EnCore® Fuel is a game-changing accident-tolerant fuel solution that is intended to provide design-basis altering safety and significant economic benefits, as well as greater uranium efficiency.

As the leading supplier of nuclear fuel globally, Westinghouse has access to a world-class network of research, design and manufacturing partners. We are collaborating to deliver EnCore Fuel on an aggressive, accelerated schedule.

Learn more about how Westinghouse EnCore Fuel is changing nuclear energy at <http://bit.ly/WestinghouseEnCoreFuel>