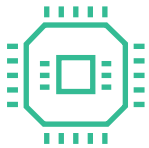


ACCIDENT TOLERANT FUELS

INNOVATION, SAFETY AND EFFICIENCY

The commercial nuclear industry has been aggressively developing new types of reactor fuels that are more robust with improved performance. These innovative new fuel products will benefit not only the existing nuclear fleet but are crucial to new advanced reactors designs.

Accident tolerant fuel (ATF) offers a significant benefit to current operating plants because ATF allows for a larger quantity of energy to be released from the fuel—known as burnup—and higher fuel enrichment.



Enabling New Reactor Technologies

New advanced reactor designs will leverage regulatory experience and utilize the increased enrichment pathway that is demonstrated under the ATF program.



Greater Flexibility

ATF improves integration with wind and solar by providing nuclear power plants the ability to adjust power output as demand for electricity fluctuates throughout the day.



Improved Efficiency

ATF is a more efficient fuel and reduces the number of fuel assemblies per outage cycle, improving plant economics to benefit both the grid and consumers. ATF with increased burnup and enrichment allows all reactors to be refueled every 24 months—instead of 18 months.



Less Waste

Innovative ATF concepts have the potential to generate 20 percent less waste than current fuel types. Less waste reduces federal spent fuel disposal costs.



Enhanced Safety

ATF further enhances safety due to improved robustness and performance in plant operations.

Congress has supported the nuclear industry's aggressive timeline for ATF innovation with funding for research, design and testing available through the U.S. Department of Energy. Continued funding is required to realize the promise of ATF by enabling increased burnup and enrichment.