AREVA Advances to Phase Two of U.S. Department of Energy’s Enhanced Accident Tolerant Fuel Program

CHARLOTTE, N.C., February 1, 2017 – AREVA recently advanced to phase two of the U.S. Department of Energy’s (DOE) Enhanced Accident Tolerant Fuel (EATF) Program. After the initial four-year research phase identified promising technologies, DOE awarded the company a $10 million, two-year grant, plus the continued use and support of its national laboratory facilities, to build on this work, and develop and deploy an EATF concept for light water nuclear reactors. EATF is designed to be more resistant to severe accident conditions.

“At AREVA, our business is sustaining and advancing the nuclear energy industry, and an important part of that is developing next-generation fuel to power the reactor fleet,” said Robert Freeman, vice president of AREVA’s Fuel Business Unit in the United States. “AREVA is proud to be among the industry participants in the DOE EATF program and our plan for near-term deployment of an industrialized enhanced accident tolerant fuel is going extremely well. One benefit of this stable fuel concept is that it will provide reactor operators with more time to respond during an extreme event. As with our other fuel lines, this concept also enhances a nuclear facility’s day-to-day ability to efficiently generate low-carbon, reliable electricity.”

During phase two, an AREVA-led team will design and develop a nuclear fuel concept using a chromium-coated zirconium alloy cladding combined with a chromia-doped fuel pellet (Cr-Cr). In parallel to the deployment of Cr-Cr lead test assemblies, AREVA is continuing research advancing a metallic-lined silicon carbide (SiC) tube to achieve even greater benefits.

The scope of the grant also includes irradiation testing and licensing in preparation for the loading of lead test assemblies in a U.S. commercial reactor in 2022. In parallel with this grant, AREVA is conducting irradiation testing in European reactors to collect data on chromium-coated cladding and SiC tubes, as well as the needed manufacturing and licensing activities to bring these products to market.

Along with AREVA, the team advancing this concept includes members from U.S. national labs, universities and utilities, including Exelon, Duke Energy, Southern Nuclear, the Electric Power Research Institute and the University of Florida.

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AREVA in North America (AREVA Inc.) combines U.S. and Canadian leadership to supply high added-value products and services to support the operation of the commercial nuclear fleet. Globally, AREVA is present throughout the entire nuclear cycle, from uranium mining to used fuel recycling, including nuclear reactor design and operating services. AREVA is recognized by utilities around the world for its expertise, its skills in cutting-edge technologies and its dedication to the highest level of safety. AREVA Inc.’s 4,100 employees are helping build tomorrow’s energy model: supplying ever safer, cleaner and more economical energy to the greatest number of people. Visit us at http://us.areva.com or follow us on Twitter @AREVAus.