AREVA Completes Major Milestone in First Cavitation Peening Project

CHARLOTTE, N.C., January 27, 2016 – AREVA recently completed production validation testing of a new component asset management process known as ultra-high-pressure cavitation peening for the first project of its kind in the world on an operating reactor vessel closure head (RVCH). The company is scheduled to perform this technique at Exelon’s Byron Unit 2 in northern Illinois in April.

This process prevents nuclear reactor component stress corrosion cracking by using ultra-high-pressure water jets to generate vapor bubbles, which collapse with enough force to create beneficial compressive stresses on the components’ internal surfaces. The result is a component with improved material properties and enhanced resistance to corrosion.

“Our team completed this important milestone in support of the upcoming Byron outage safely, successfully and ahead of schedule,” said George Beam, senior vice president of Installed Base Services at AREVA Inc. “Completion of this key milestone demonstrates our team’s commitment to operational excellence and to supporting the continued operation of the existing reactor fleet.”

This milestone included completing full-scale simulated field testing of all equipment and processes on a mockup reactor vessel head, mirroring the conditions that the team will experience when conducting the cavitation peening at Byron this spring.

Following work at Byron’s Unit 2, AREVA will complete cavitation peening on Unit 1 as well as at Exelon’s Braidwood Generating Station Units 1 and 2. Exelon’s Byron and Braidwood generating stations each have two pressurized water reactors that generate enough low-carbon electricity to power more than four million American homes.

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