

Reactor vessel cavity installed at Vogtle 4

22 June 2015

Construction of the second AP1000 unit at the Vogtle nuclear power plant reached a milestone with the installation of the module that will house the unit's reactor pressure vessel, Georgia Power announced.



*The CA04 module is lowered into place in Vogtle 4's containment vessel bottom
(Image: Georgia Power)*

The company said in a 19 June statement that the 32-tonne CA04 module - also known as the reactor vessel cavity - had been placed into the nuclear island of Vogtle 4.

The module is over eight metres tall and 6.4 m in diameter, and is comprised of five sub-modules. It was assembled on site in the modular assembly building, moved to the nuclear island as one piece and lifted into place on 18 June using one of the largest cranes in the world. More than 120 workers were involved in the fabrication and placement of the CA04 module, Georgia Power said.

The AP1000 design uses modular construction techniques, enabling large structural modules to be built at factories and then installed at the site. This means that more construction activities can take place at the same time,

reducing the time taken to build a plant as well as offering economic and quality control benefits. According to Westinghouse, factory-built modules can be installed on-site within a planned three-year construction schedule.

Two AP1000s are being constructed as units 3 and 4 of the Vogtle plant. Construction officially began on Vogtle 3 in March 2013, with the pouring of the concrete basemat for the unit. That for unit 4 was poured in November 2013. The CA04 module for unit 3 was put in place in December 2013.

The reactors are scheduled to start operation in 2019 and 2020, respectively. The units are being built by a contractor consortium of Westinghouse and CB&I/Stone and Webster. They will be operated by Southern Nuclear Operating Company on behalf of owners Georgia Power (45.7%), Oglethorpe Power Corporation (30%), Municipal Electric Authority of Georgia (22.7%) and Dalton Utilities (1.6%).

In addition to Vogtle, AP1000s are currently under construction at the VC Summer site in the USA and at Sanmen and Haiyang in China. All four Chinese units are scheduled to be in operation by the end of 2017.

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