



December 22, 2011

# N.R.C. Clears Way for Nuclear Plant Construction

By **MATTHEW L. WALD**

WASHINGTON — The [Nuclear Regulatory Commission](#) on Thursday unanimously approved a radical new reactor design, clearing the way for two American utilities that have broken ground on projects in South Carolina and Georgia. The decision is a milestone in the much-delayed revival of nuclear plant construction sought by the industry.

The commission took the unusual step of waiving the usual 30-day waiting period to approve the reactor design, the [Westinghouse AP1000](#), so its decision will be effective in about a week. That moves the utilities closer to the point where they can start pouring concrete for safety-related parts of the plant.

The decision also allows the commission's staff to issue a new kind of license, a combined construction and operating license, for the four reactors, two at each site.

The two utilities, with their partners, have already spent hundreds of millions of dollars digging foundations for the two projects: the Southern Company's [Vogtle 3 & 4](#) reactors near Augusta, Ga., and the South Carolina Electric and Gas company's [Summer 2 & 3](#) reactors, in Fairfield County, S.C.

They have also brought in cooling water and taken other early steps that do not require approval of the reactor design.

Westinghouse [said in a statement](#) after the vote that the path to having the design approved and been "arduous."

Of the 104 operating power reactors in the United States, [the youngest](#) entered service in 1996. The four new reactors to be built in Georgia and South Carolina are the only survivors in what had been envisioned as a bigger field of new plants that narrowed over the last three years as investors ran into financial and other obstacles.

The Westinghouse AP1000, a 1,154-megawatt reactor, has a so-called advanced passive design that relies more heavily on forces like gravity and natural heat convection and less on pumps, valves and operator actions than other reactors, in theory diminishing the probability of an accident.

For example, it is supposed to shut down safely if **all electrical power is lost**, which is what happened at the Fukushima Daiichi plant in Japan after the earthquake and tsunami in March.

The regulatory commission approved an earlier version of the AP1000 in 2006, but the design was later ruled out for American utilities when the agency adopted a rule in 2008 requiring newly constructed reactors to be able to withstand the impact of a crashing aircraft.

China is in advanced construction of four units of an earlier version of the AP1000.

Opponents of the reactor, among them the North Carolina group **NC Warn**, have argued that no new designs should be certified until the lessons of the Fukushima accident have been fully absorbed. And Representative Edward J. Markey, Democrat of Massachusetts, and others have drawn attention to concerns raised by an engineer at the commission that a building surrounding the reactor containment **might fail under some circumstances**.

But the chairman of the commission, Gregory B. Jaczko, said that all of the panel's safety concerns had been fully addressed.

"The design provides enhanced safety margins through use of simplified, inherent, passive, or other innovative safety and security functions, and also has been assessed to ensure it could withstand damage from an aircraft impact without significant release of radioactive materials,-" he said in a statement.

The decision is a rare instance of agreement among the commissioners, who have split this year over policy and management issues. Last week four of the commissioners testified before Congress that Dr. Jaczko had inappropriately limited the flow of information to them and tried to cut them out of important decisions.

