SC, NC Commissions Are Urged to Revoke Duke Nuclear Cost Approvals Due to Design Problems, Delays

Feds tell Westinghouse its design is off track; doubts over new nukes grow

DURHAM, NC - Federal regulators now say a nuclear plant design touted as “certified” in 2004 remains years from completion, more delays in the design approval process are likely, and problems involving major components and plant systems persist. In response, public interest groups in North and South Carolina today filed legal motions calling for revocation of $230 million in preconstruction costs approved by both states’ electricity regulatory commissions in May and June for two new Duke Energy reactors.

Friends of the Earth and NC WARN told utilities commissioners in both states today that escalating design problems threaten Duke Energy’s chances of ever completing two new Westinghouse AP1000 reactors it wants to build near Gaffney, SC. They also say the delays mean Duke cannot provide a firm project cost estimate for the Lee Nuclear Station by year-end, a commitment the company made to both commissions during hearings over the preconstruction costs.

“The U.S. Nuclear Regulatory Commission has served notice that the ‘nuclear revival’ is in trouble,” Tom Clements, of Friends of the Earth’s Columbia, SC office said today. “Duke Energy’s customers should not be stuck holding the bag if the company keeps pouring millions into that risky project. The state regulatory agencies must now reverse their earlier decisions to approve Duke’s reactor project and require that the company not come back for reconsideration until the reactor design is finalized.”

Late this spring, both state commissions deemed Duke’s request to incur $230 million in “preconstruction costs” to be “reasonable and prudent,” effectively clearing the charges to eventually be passed to Duke Carolinas customers in their electricity bills. The power giant says the money is being used for site clearing, project planning, engineering, and “some limited initial payments” for large equipment such as pumps, reactor vessels and steam generators - most of which are now caught up in the design certification problems.

During hearings prior to those approvals, former NRC commissioner Peter Bradford, testifying on behalf of the public interest groups, warned that construction of new plants “employing untested designs entails
extremely large economic risks” for customers. Even Duke’s own expert testified under cross examination that “significant financial, regulatory and technical challenges” remain unresolved, citing the incomplete Westinghouse design as “the most significant technical challenge.”

Since then, Westinghouse’s problems with the AP1000 have swelled. In a June 27th letter to the reactor maker, NRC noted that the company’s recent withdrawal of technical documents due to design troubles had pushed the agency’s review of key components and systems back at least several months, possibly into 2012. The AP1000 is experimental in nature and has never been constructed even on a demonstration scale.

Earlier this year, Duke Energy and others filed 6,500 pages of Westinghouse’s technical design documents as the major component of applications to build new plants. Of the 172 interconnected Westinghouse documents, only 21 have been certified. And most of those rely on systems integral to the remaining, unapproved documents, which include the reactor building, control room, cooling systems, engineering designs, plant-wide alarm systems, piping and conduit.

The NRC is trying to review and certify plant designs separately from the applications themselves, compounding the challenge to maintain a hoped-for timeline of three years for new plant approval.

The agency anticipates more modifications as the review progresses - likely delaying each project.

Given the lack of a final design, the NRC’s certification was, at best, premature. Until the final design has been submitted, reviewed and approved, the NRC should withdraw its certification of the AP1000. The same incomplete design is being proposed by utilities in North Carolina (Progress, Harris site), South Carolina (SCE&G, VC Summer site), Georgia (Georgia Power, Vogtle site), Alabama (TVA, Bellefonte site), Florida (FP&L at Turkey Point, Progress at Levy County).

Nuclear industry proponents claimed that generic blueprints created by Westinghouse and a few others could be slightly modified for specific sites. Such standardization is considered crucial to avoiding the cascading mistakes, delays and cost overruns during licensing and construction that forced scores of midstream cancellations - including six by Duke - in the 1980s.

But the AP1000, which Westinghouse and NRC dubbed “certified” in 2004, is now in its 16th revision. In testimony before the NC and SC regulatory commissions, Duke failed to disclose that growing delays and problems were facing the design review. And last month, the NRC said it must delay its license review at Calvert Cliffs until certification of Areva, Inc’s design is complete.

“The NRC is protecting itself against blame for the nuclear revival getting bogged down,” said NC WARN’s Jim Warren today. “Accordingly, our utilities commissions must protect customers from risky corporate behavior by rejecting the premature and half-baked reactor proposals.”

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Notes to editors:

NRC’s June 27 letter to Westinghouse indicating more design delays: [file:///Z:/testwebsite/docs/letters/Ltr%20NRC%20to%20Westinghouse%20re%20design%20schedule%206-27-08.pdf]

NRC website on the AP1000 design is found at: [http://www.nrc.gov/reactors/new-licensing/design-cert/amended-ap1000.html]

The NC WARN and FOE motions can be found at:


NC Utilities Commission docket on Duke’s request to incur “preconstruction costs” can be found by search for docket E-7 Sub 819 at [http://ncuc.commerce.state.nc.us/docksrch.html](http://ncuc.commerce.state.nc.us/docksrch.html)


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Friends of the Earth (foe.org) is the U.S. voice of the world’s largest grassroots environmental network, with member groups in 70 countries. Since 1969, Friends of the Earth has been at the forefront of high-profile efforts to create a more healthy, just world.

NC WARN (ncwarn.org) is a grassroots non-profit using science and activism to tackle climate change and reduce hazards to public health and the environment from nuclear power and other polluting electricity production, and working for a transition to safe, economical energy in North Carolina.