

*Blue Ridge Environmental Defense League
A member of the AP1000 Oversight Group*

NEWS RELEASE

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Groups Urge Feds to Suspend Nuclear Licensing; Westinghouse Reactor Defect Was Missed By Regulators

Nuclear engineer says corrosion turns “passive” emergency feature into greater accident risk

Today, twelve national and regional environmental organizations called upon U.S. nuclear regulators to launch an investigation into newly identified flaws in Westinghouse’s new reactor design. The coalition asked three federal agencies to suspend the AP1000 reactor from licensing and taxpayer loan consideration.

The newly discovered design flaw is tied to documentation of dozens of corrosion holes being found in existing U.S. reactor containments, which recently has raised concern at the Advisory Committee on Reactor Safeguards (ACRS), an independent arm of the U.S. Nuclear Regulatory Commission (NRC). Containment buildings are vital barriers against radiation releases during nuclear accidents.

“The proposed AP1000 containment design is inherently less safe than current reactors,” said Arnold Gundersen, former senior vice-president at Nuclear Energy Services PCC. Westinghouse did not analyze the scenario for failure containment warned of by Gundersen. He continued, “Westinghouse has ignored the long history of previous containment failures that indicate there is a high likelihood that the AP1000 containment might be in a failed condition [one or more undetected holes] before an accident begins. The containment leakage problem is exacerbated because the AP1000 is specifically intended to function as a chimney – to pull air up and release it through the top of the building.”

Gundersen, a 38-year engineering veteran of the nuclear power industry, produced a 32-page technical report* detailing a history of holes and cracks found at operating nuclear plants. Such corrosion problems, if coupled with the experimental “passive” emergency cooling feature in the AP1000, could accelerate and greatly increase the early release of radiation during an accident. Gundersen’s report is backed by engineer and corrosion specialist Rudolf Hauser.

Based on the report, the coalition today urged NRC Chairman Gregory Jaczko** to suspend license reviews of 14 proposed AP1000 reactors pending the ACRS investigation. They also urged Secretary of Energy Chu and the White House Office of Management and Budget to drop plans for taxpayer funding for the reactor due to increasing risks of projects failing in midstream. In February, the Obama Administration awarded \$8.33 billion in controversial taxpayer-financed loans (with a public guarantee to cover default) to an AP1000 project at Southern Company’s Vogtle plant in Waynesboro, Georgia.

Gundersen’s analysis shows that even a three-quarter inch hole in the AP1000 reactor building could,

under pressure from a pipe break or other accidents, result in a large and unfiltered radiation release because the building is deliberately intended to move air and heat into the atmosphere during an emergency. That heat removal – via a gap between an inner metal containment and the outer shield building – is the very feature Westinghouse touts as its principal safety upgrade.

Gundersen explained why the probability of a radiation accident is higher with the AP1000: “Existing data shows that containment system failure occurs with moisture and oxygen.” He explained today that for the AP1000 design, leakage from the emergency water tank located above the reactor, testing the tank and/or atmospheric humidity will create, within the gap between liners, “a constant environment of moisture and oxygen that may, in fact, provoke a through-wall containment failure in locations that are difficult or impossible to inspect.”

“The Obama Administration should put the brakes on. The consequences of containment failure at Plant Vogtle would be devastating,” said Lou Zeller, Science Director for the Blue Ridge Environmental Defense League. “We call upon Energy Secretary Chu and NRC Chairman Jaczko to recall the dangerously flawed AP1000 design before accidents occur and more tax dollars are wasted.”

A number of organizations are contesting design and licensing efforts of 14 AP1000s at seven sites across the Southeast. Also, four AP1000s are under construction in China, with more planned there and in India.

At least 77 instances of containment system degradation have occurred at operating US reactors since 1970. That includes eight through-wall holes or cracks in steel containments – two discovered in 2009 – and 60 instances of corrosion that thinned the liner walls below the allowable thickness. In addition to the ACRS, nuclear experts in Europe have recently expressed concern about the likelihood of containment failures at aging plants.

Although Westinghouse and nuclear utilities such as Duke Energy, Progress Energy and others contend that the AP1000 design was “pre-certified” by the NRC in 2006, in the past two years the NRC has identified a daunting list of design problems involving major components and operating systems, resulting in eighteen revisions to the design. Thus, cost estimates for some of the projects have doubled or tripled. Last October the NRC stunned observers by rejecting the reactor building for its potential inability to withstand high winds and the weight of the emergency water tank.

“The so-called nuclear revival is in real trouble, so it’s no wonder the industry insists on socializing the risks,” said Mary Olson of Nuclear Information and Resource Service. “President Obama and Congress seem clueless to the construction failures occurring in Europe and design problems in the U.S. It’s tragic that industry’s lobbying money has blinded them into efforts to risk 54 billion public dollars for nuclear plants, while a fraction of that amount could help America move quickly into genuine climate protection through clean, efficient energy.”

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* See: <http://fairewinds.com/AP1000-Containment-Leakage-Report-Fairewinds-Associates-Inc> for the engineer’s report and graphic illustrations of the chimney-effect during an accident.

** See: <http://www.nirs.org/nukerelapse/background/backgroundhome.htm> for letters to US Nuclear Regulatory Commission Chair, and Advisory Committee on Reactor Safeguards

Coalition groups:

AP1000 Oversight Group

Bellefonte Efficiency and Sustainability Team

Blue Ridge Environmental Defense League

Citizens Allied for Safe Energy (Miami)

Friends of the Earth

Georgia Women's Action for New Directions

Green Party of Florida

NC WARN: Waste Awareness and Reduction Network

Nuclear Information and Resource Service

Nuclear Watch South

Sierra Club South Carolina Chapter

Southern Alliance for Clean Energy