AP1000 Talking Points

Duke is proposing two new reactors designed by Westinghouse, the new AP1000 design
The US Nuclear Regulatory Commission recently gave a "stamp of approval" to this new design against the objections of a group of independent nuclear analysts, engineers and concerned citizens known as the AP1000 Oversight Group.

The AP1000 Oversight Group, lead by concerned Citizens in the Carolinas, including NC WARN, Nuclear Information and Resource Service and many other local and regional organizations brought forward a key concern about the design, which the Draft Environmental Impact Statement for the proposed Wm. States Lee fails to adequately address:

The 1 inch thick steel containment of the AP1000 which is encircled by the open-to-the-air shield building will be subject to moisture and water vapor. Over time, it is possible that an AP1000 containment building could corrode, like 17 other examples of corrosion brought by the AP 1000 Oversight Group to the NRC's attention in the existing fleet of reactors. It is possible that a relatively SMALL HOLE -- the diameter of only a pencil -- could be undetected in the wall of the relatively thin containment. IF a core accident were to happen after a hole formed, there would be a release of concentrated radioactivity to the open environment.

Our concern is that the this release could be larger, and spread faster to the surrounding area, impacting people and our environment due to the new Westinghouse design itself. We, and the Oversight Group find that some of the so-called "passively safe" features are, in fact, actively dangerous.

Since Westinghouse did not design the shield building as containment, but instead as a gamma shield and an up-draft cooling for the containment, it would not impede the release of radioactivity. Instead, the "cooling tower" updraft of the shield building would, instead act as a chimney to essentially suck more radioactivity and in a shorter period of time out of the containment than would occur otherwise.

This early failure to contain radioactivity could greatly impact early emergency response and evacuation, which Westinghouse has claimed are not necessary because of the so-called "passive" safety features. We are also concerned that this "actively dangerous" design could spread more radioactivity across a wider area since the shield building up-draft might result in the plume attaining a higher altitude. This could result in radioactive deposition in a larger area, impacting more water shed area, more urban populations, and more species depending on the direction of wind travel!

The DEIS for Duke's proposed reactors fails to adequately address these concerns.

More info:
NIRS.ORG / NCWARN.ORG / BREDL.ORG / CLEANENERGY.ORG / MARKEY.HOUSE.GOV / NRC.GOV