

**AP1000 Oversight Group, Bellefonte Efficiency and Sustainability Team,
Blue Ridge Environmental Defense League,
Citizens Allied for Safe Energy, Friends of the Earth,
Georgia Women's Action for New Directions, Green Party of Florida,
North Carolina Waste Awareness and Reduction Network,
Nuclear Information and Resource Service, Nuclear Watch South,
SC Chapter - Sierra Club, Southern Alliance for Clean Energy**

VIA MAIL AND EMAIL

April 21, 2010

The Honorable Gregory B. Jaczko, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: APPEAL FOR IMMEDIATE REVIEW OF
SIGNIFICANT AP1000 DESIGN DEFECT

Dear Chairman:

The above local, regional and national organizations hereby appeal to the Nuclear Regulatory Commission ("NRC") to immediately commence a review of an unreviewed safety issue which fundamentally calls into question the adequacy of the AP1000 reactor design to protect public health and safety in the event of an accident. The apparent design defect with the AP1000 reactors should be thoroughly resolved in a safe manner before any new reactor using this design is licensed.

The basis for our concern is described in the attached report by Arnold Gundersen, Chief Engineer, Fairewinds Associates, Inc., "Post Accident AP1000 Containment Leakage: An Unreviewed Safety Issue," April 7, 2010 ("Fairewinds Report").

We have also attached our letter to Dr. Said Abdel-Khalik, Chairman of the Advisory Committee on Reactor Safeguards ("ACRS"), requesting the ACRS initiate a special investigation into the apparent flaw in the AP1000 reactor design.

As discussed in the Fairewinds Report, the AP1000 design lacks secondary containment. Instead, the reactor shield building is designed to act as a chimney,

conveying heated air into the environment. In the event that the containment is breached by corrosion, this chimney-like design may draw a significant volume of radioactively-contaminated air into the environment, causing a major threat to public health and safety. The history of containment corrosion documented in the Fairewinds Report heightens our concern regarding this apparent design defect.

We recognize that the Revision 18 of the AP1000 reactor design and many of its major safety components and operational procedures are currently being reviewed by the NRC staff. The containment design defect is just one of the serious problems with the AP1000 reactor that must be resolved prior to its approval by the NRC.

This appeal goes to the heart of the NRC's mission under the Atomic Energy Act to protect the health and safety of the public. The U.S. Supreme Court described public safety as "the first, last, and a permanent consideration in any decision on the issuance of a construction permit or a license to operate a nuclear facility." *Power Reactor Development Corp. v. International Union of Electrical Radio and Machine Workers*, 367 U.S. 396, 402 (1961). We agree; now is the time not to risk public health and safety in the expectation that this flawed containment design is acceptable.

As we committed to Chairman Abdel-Khalik, we will be glad to meet with the NRC and the ACRS to discuss this issue and its safe resolution. At the same time, we would like to remain fully informed of actions and reviews the NRC staff takes on this serious matter.

Please contact me at the address below and I will inform the organizations that have joined in this appeal of your action.

Sincerely,

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ENC. Letter to Dr. Abdel-Kalik
Fairewinds Report