

Stop Gulf oil spill type of disaster in the making

1/17/2011

TO

Mr. Gundersen, Fairewinds Associates

Mr. John Runkle, Waste awareness and reduction network

New York Times, Washington Post

Attached for your information is a letter dated Nov. 8, 2010, regarding AP1000 reactor design that was provided to appropriate authorities for remedial action. It was hoped that they will take action. Stakes are high; so is the pressure on the government to approve the AP1000 reactor design without further detailed investigation to meet the commercial schedule of the industry.

As was expected, no action is forthcoming. It is now up to the public and responsible media to raise the issue and save our environment from gulf oil spill type of disaster that is in the making. I trust you will recognize your responsibility and will do your part to keep our nation and the environment free from manmade disaster—failure of AP1000 reactor if approved as is.

Westinghouse has been giving the type of 'rock' NRC wanted to close and approve the design. It's a classical case of a NRC staffer and his Manager (Ms. Dudes) who pushed and had the design approved 'no matter what' in return for monetary reward and anticipatory promotion. As part of the plan, the ACRS has also approved the design because there is so much information to review that humanly can not be reviewed in short time the ACRS has at its disposal. Therefore, for most part, the ACRS had no choice but to rely on the information provided by this NRC staffer and the Westinghouse. The ACRS review outcome was obvious—the design is good. That is proceeding according to this NRC staffer's plan.

Unfortunately there is nobody to stop this disaster in the making. The AP1000 design will not survive an airplane attack similar to WTC. The scenarios that will bring down the shield wall and the containment have not been considered. I am afraid that you don't have to be a rocket scientist to think of such scenarios. Westinghouse has used computer programs that are faulty and unproven for this purpose.

I have done my part as a responsible citizen. I hope someone else will follow it up.

Thank you.

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November 8, 2010

Subject: Stop another Gulf oil spill type of environmental disaster in the making

To: NRC Inspector General

Dr. Said Abdel-Khalik, Chairman, ACRS

Chairman, NRC

US Representative Edward Markey,

Dear Sir:

This is to bring to your attention an urgent matter regarding the design of Westinghouse's new reactor AP1000. The NRC staff's review of the Westinghouse application is on fast track. A NRC manager and a staff engineer, in order to meet certain milestone date, are pushing the acceptance of the Westinghouse design of the shield building at any cost. The AP1000 shield building design has glaring and serious deficiencies that should not be approved. It's another potential environmental disaster in the making similar to the gulf oil spill. The US Representative Edward Markey during the hearing on the cause of the gulf oil spill likened the failure to take action by the oil company's management to "building a car when you know the brake could fail, but you sell the car anyway".

Some of the specific issues (brake that could fail) are summarized below:

- Earthquake design of AP1000 structures, system, and components including the shield building is based on earthquake forces that Westinghouse has reduced by 300% due to 'incoherency' phenomenon. Staff has accepted 300 % reduction based on EPRI report. Incoherency is a manifestation of mathematical concept that has not been verified and validated by experiments for use in nuclear power plants. Such reductions are prone to manipulations to take the undue advantage by the applicant and the staff should not allow any reduction due to so called incoherency effect..
- Even with the significantly reduced earthquake forces, the design margin in the shield wall is practically non-existent; the design will be grossly inadequate if the 'correct' and actual earthquake analyses and forces were used.
- Tests conducted on the shield wall steel-concrete module at Purdue University failed miserably. Staff ignores the failed tests rather sees 'silver lining' even in the failed tests. Staff relies on foreign tests which did not model the AP1000 design.
- Westinghouse has used commercial computer codes and industry design codes that are not proper for the shield wall analysis and design; staff accepts these codes. Staff's consultant and UK regulator independently question the use of the codes.

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- An airplane strike similar to the World Trade Center strike will penetrate through the shield wall; the wall failed when it was tested for much smaller loads.
- Airplane strikes and their effects that are not considered will likely result in the loss of shield building and fuel cooling capability- an environmental nightmare of much bigger proportion than the gulf spill.
- Independent regulator from U.K. has raised serious questions on the shield building design.

A NRC staff engineer (Mr. Tegeler) blessed by the NRC manager (Ms. Dude) has reviewed and accepted the faulty and risky shield building design (with the issues identified above) either due to his ignorance of the subject matter or to please the manager by accepting the design as o.k. in return for a reward later. Manager Dude had spearheaded this effort and has very diligently used the NRC's 'system and processes' including the senior management to the fullest extent to ensure that no investigation will ever point responsibility to either of them rather it will be concluded as a collective responsibility of the NRC. Motivation seems to be simple -push the certification process and get rewarded.

Please do not allow it at the cost of public safety and the environment!

As a final step in the process, the staff is now pushing the shield building design through the ACRS with the notion that the ACRS does not have the relevant expertise or time to understand and question the numerous design documents to find the real design problems.

Please protect public safety and our environment from another 'gulf spill' type of fiasco in the making; it's brought to your attention for remedial action.

Thank You.