

With Reference to

Rep Ed Markey's March 7, 2011 letter to NRC

3/28/2011

TO: Mr. John Runkle

CC: Mr. Thomas R. Carper

Rep. Ed Markey

Union of Concerned Scientists, NY Times, CNN (Washington), NRC Inspector General

rec 4/11/11
No return address

Subject: Rep. Ed Markey's March 7, 2011 letter and the loopholes in the AP 1000 reactor design

All: This is with reference to Rep. Ed Markey's March 7, 2011 letter to the NRC Chairman.

NRC strategy to respond to inquiry such as Rep Markey's March 7 letter

The regulator's strategy is to confuse the real issue by providing the Congress lots of information with jargons and word engineering. They have been successful at it to have ACRS agree with them on the AP1000 design.

NRC will not back down

It is not the NRC culture to back down. You can review the NRC's past history of 36 years as a proof. Even during the March 11, 2011 Japan nuclear disaster, NRC resisted all calls from the public and Congress for a safety review of all operating reactors until President Obama 'ordered' them to do so. In the case of AP1000 faulty design, it is guaranteed that the NRC staff and the managers will not listen to the Congress until they are ordered by President Obama to 'fix' the loopholes in the weak design that will spell havoc with radiation well beyond 50 mile radius if hit by WTC type airplane. Another example of the NRC arrogance is the last week's NRC Inspector General Report that 30% of the US plant operators did not report equipment defects. The NRC does not acknowledge that there is anything wrong and continues to defend its actions. This is NRC's arrogant culture at best. The same fate is expected of the AP1000 certification.

Credibility of NRC response to Rep. Ed. Markey

The same NRC staffers who were responsible for approving the faulty design of AP1000 to begin with will respond to the Ed. Markey's March 7, 2011 letter. Their intent is to snow the Congressman with information. NRC management continues to shrug their shoulders. They will defend it tooth and nail and will not concede at any cost that they did anything wrong; their manager Laura Dude got promoted in February, 2011 as a reward for pushing AP1000 through. It is not the NRC culture to change its decision until confronted with a smoking gun.

With Reference to

Rep Ed Markey's March 7, 2011 letter to NRC

The AP1000 design will not survive an airplane attack similar to WTC because scenarios that will bring down the shield wall and the containment all together have not been considered and not analyzed using computer codes that have been validated by our own US test data.

Hold Hearings

In the interest of public health and safety, you need to intervene, hold hearings with the NRC staff to get to the truth, and hold the NRC management accountable to determine why the NRC shrugged and continues to shrug its shoulders on this safety and security issue. Perhaps an indication of a wider conspiracy or is it just a plain arrogance?? The NRC Inspector General should be also authorized to look into it. In many respects, the NRC is no different from the Minerals Management Service, the agency that once regulated off shore drilling and was responsible for gulf oil fiasco.

The real concern is that with the current unsafe culture, the NRC staff may be missing the boat on all other new reactor designs reviews that could put the public health and safety in jeopardy.

Clock is ticking and the rule making for the AP1000 certification is proceeding on a 'fast' track. You got to intervene before time runs out on it.

Thank you.

With Reference to

Rep Ed Markey's March 7, 2011 letter to NRC

designed. It will lead to scenario worse than that we are witnessing in Japan where at least there are some active systems to cool the fuel. It will spread radiation much beyond 50 mile radius. Terrorist now know how terrifying the nuclear fuel accident can be and now than ever they will be tempted to take such an undertaking to cause the maximum damage to weakly designed AP1000.

NRC and Westinghouse Act Together like MMS that regulated off-shore drilling industry

The NRC and the Westinghouse are in it together to approve the faulty design that will not survive the aircraft impact. The computer analysis based on LSDYNA code used by the Westinghouse and approved by the NRC is flawed and invalid. Westinghouse has ignored industry guidance and standards for such an analysis and the NRC has knowingly shrugged their shoulder and approved the deficient design anyway. To add to its credibility, the NRC staff had the ACRS review the information. The ACRS reviewed the information that staff provided to it. Therefore, the ACRS review outcome was but obvious.

Root cause of impending disaster

If the AP1000 nuclear plant were to be hit, it will result in a disaster worse than the WTC disaster because of widespread radiations. The root cause is –there were plenty of warning for the impending disaster, but the federal regulators failed to do their job and take action to insure public and environment safety. The NRC management hand-picked couple of staffers to approve the design to meet the schedule so they can be rewarded with promotions and bonuses – one of them (Laura Dudes) already got promoted to the Director's position in February 2011 (clear case of quid-pro-quo that warrants an investigation).

It's a classic case of a mid-level NRC manager (Ms. Dudes) and a NRC staffer (Tegeler) pushed and had the design approved cleverly using the NRC system 'no matter what' in return for monetary reward and anticipatory promotion. They managed to navigate the design through other NRC offices and the system so nobody could pin-point fault at them. There is total disregard to safety over schedule. The way NRC system works: after ACRS has blessed the design, the NRC engineering manager and the staffer are completely shielded and NO ONE INDIVIDUAL IS HELD RESPONSIBLE.

Safety Wake-up call

The ACRS approval should not provide a **false sense of safety and security** to the country because their assessment is based on the staff and Westinghouse supplied faulty, limited, and unproven analysis that solely relies on Japanese tests. As we have seen during last few weeks the Japanese information is not accurate and reliable and even the Japanese government yesterday publicly chastised TEPCO, the Japanese utility company for not providing correct information to the government. Japanese regulator did not buy into the tests that were conducted by the Japanese nuclear industry due to their lack of confidence in the tests. In the absence of our own successfully conducted tests, and given the Japanese information is not accurate and reliable, the sole reliance on the Japanese tests for the AP1000 design is suicidal.

With Reference to

Rep Ed Markey's March 7, 2011 letter to NRC

Fallacy of the AP1000 Passive Design –Chinese regulator express doubt about the passive system to function after Japanese accident

Westinghouse on its public website www.westinghousenuclear.com/docs/AP1000_brochure.pdf boasts of its passive cooling system on page 4:

"The unique feature of the AP1000 is its use of natural forces - natural circulation, gravity, convection and compressed gas - to operate in the highly unlikely event of an accident, rather than relying on operator actions and ac power. Even with no operator action and a complete loss of all on-site and off-site ac power, the AP1000 will safely shut down and remain cool.

Because natural forces are well understood and have worked as intended in large-scale testing, no demonstration plant is required. The Westinghouse advanced passive reactor design underwent the most thorough pre-construction licensing review ever conducted by the U.S. NRC."

The above passage clearly shows the misunderstanding Westinghouse has regarding the natural forces thinking that the natural forces are well understood- far from it we all know this is not true and recent tragedy in Japan has once again demonstrated in no uncertain terms how little we understand the nature. The other Westinghouse argument is that NRC has thoroughly reviewed their design –we know it that the NRC has simply pushed the design through its process without worrying about the consequences to public safety.

Accident at AP 1000 will cause havoc worse than that we have seen from March 11, 2011 Japanese Tragedy

We now all know that at Fukushima plant, primary reason for the radiation spread was the failure of all cooling systems. A plane hitting the AP1000 roof tank is guaranteed beyond any doubt (regardless what the NRC says based on Westinghouse analysis) to render the passive safety system inoperable leaving no other system to cool the reactor containment and the fuel. Here in the paragraph below is just one proof why the plane hit at AP1000 will result in radiations worse than that from the March 11, 2011 Japan tragedy.

The NRC's regulatory guide 1.91 provides guidance for evaluating explosions postulated to occur on transportation routes near nuclear power plants. Based on figure 2 of the regulatory guide 1.91, the safety related structures, systems, and components that must be protected from the explosion should be located at least 45 feet from the site of mere one pound of TNT explosion. The effect of explosion from a plane hitting the AP1000 roof water tank is several orders of magnitude larger than that due to explosion of just one pound of TNT. We know how powerful the plane hits could be; it took down the WTC. At AP1000, it will destroy all infrastructure for passive cooling (or otherwise) system that is located only few feet (much closer than 45 feet that is allowed for one pound of TNT explosion) from the shield building roof water tank and the containment.

As you know, the NRC's own inspector general report of last week showed that 30% of US plant operators did not report the equipment defects. This does not bode well and provided no confidence that the equipment when needed in an accident scenario will indeed function as