

EDO Principal Correspondence Control

FROM: DUE: 08/19/11

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DOC DT: 08/01/11
FINAL REPLY:

Representative Edward J. Markey

TO:

Chairman Jaczko

FOR SIGNATURE OF :

** PRI **

CRC NO: 11-0460

Chairman Jaczko

DESC:

ROUTING:

Safety Concerns with Westinghouse AP1000 Nuclear
Reactor Design (EDATS: SECY-2011-0442)

Borchardt
Weber
Virgilio
Ash
Mamish
OGC/GC
Johnson, NRO
Burns, OGC
Schmidt, OCA

DATE: 08/02/11

ASSIGNED TO:

CONTACT:

EDO

Rihm

SPECIAL INSTRUCTIONS OR REMARKS:

Please prepare response in accordance with OEDO
Notice 2009-0441-02 (ML093290179). NRO to provide
input to Roger Rihm, OEDO, if required. Roger Rihm
to coordinate response with OGC and OCA.

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EDATS

Electronic Document and Action Tracking System



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General Information

Assigned To: OEDO

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Other Assignees:

SECY Due Date: 8/23/2011 11:00 PM

Subject: Safety Concerns with Westinghouse AP1000 Nuclear Reactor Design

Description:

CC Routing: NRO; OGC; OCA

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Response/Package: NONE

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Agency Lesson Learned: NO

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Signature Level: Chairman Jaczko

Sensitivity: None

Urgency: NO

Approval Level: No Approval Required

OEDO Concurrence: YES

OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions: Please prepare response in accordance with OEDO Notice 2009-0441-02 (ML093290179). NRO to provide input to Roger Rihm, OEDO, if required. Roger Rihm will coordinate response with OGC and OCA.

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Addressee: Chairman Jaczko

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AUTHOR: REP Edward Markey
AFFILIATION: CONG
ADDRESSEE: Gregory Jaczko
SUBJECT: Westinghouse AP1000

ACTION: Signature of Chairman
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LETTER DATE: 08/01/2011

ACKNOWLEDGED: No
SPECIAL HANDLING: Commission Correspondence

NOTES:

FILE LOCATION: ADAMS

DATE DUE: 08/23/2011 **DATE SIGNED:**

EDO --G20110575

Congress of the United States
House of Representatives
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August 1, 2011

The Honorable Greg Jaczko
Chairman
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Jaczko:

I am writing to urge the Nuclear Regulatory Commission (NRC) not to divert Commission staff or other resources from their responsibilities addressing real safety concerns with the Westinghouse AP1000 nuclear reactor design in order to address a recently suggested rule change¹ that would allow the issuance of a Combined Operating License (COL) to companies seeking to begin construction of AP1000 nuclear reactors before approval of the final rule for the reactor design is finalized. Generally, a COL is needed before safety-related construction of a nuclear reactor can begin (safety related construction is that which pertains to systems, structures, or components that need to function during an accident, which includes most serious construction of a nuclear reactor) and is only issued once a design receives final approval. Instead, this proposal would allow such construction to begin after the Commission affirms its support for a final rule, but before the NRC staff completes its work to incorporate any changes to the rule, including safety-related changes, that are directed by the Commission. This could result in construction being authorized to begin 1-2 months earlier than is allowed under current regulations, as well as construction beginning before important, safety-related changes are completed, documented and published as part of the Final Rule. This would represent corporate welfare at its worst. Putting the public in potential danger by relaxing the application of safety regulations to help the nuclear industry meet deadlines is simply irresponsible.

As you know, on March 8, three days before the earthquake that precipitated the terrible disaster at Japan's Fukushima reactors, I sent you a letter regarding issues with the AP1000 reactor design, a design that the NRC had preliminarily voted to approve and place into a public comment and review process. In my letter to the Commission, I expressed concern that the NRC was not giving sufficient weight and consideration to the Non-Concurrence originally raised by

¹ See ADAMS accession number ML1152A189 at <http://www.nrc.gov/reading-rm/adams.html>

Dr. John Ma, one of the NRC's most senior technical staff members.² Dr. Ma said that the shield building of the AP1000 reactor could "shatter like a glass cup" under strain from disasters such as earthquakes or impacts from projectiles (such as commercial aircraft). Westinghouse had claimed its reactor design was safe based only on computer simulations and calculations assuming unrealistic seismic simulation scenarios, while ignoring physical tests that indicated much of the shield building was brittle and therefore could shatter under stress.

In light of these and other issues raised about the design by NRC staff, on May 20 you announced, "The NRC will always place its commitment to public safety and a transparent process before any other considerations; Westinghouse must resolve the issues before we can consider finalizing NRC certification of the design".³ I commended you for making this decision and continue to affirm that such prudence in government regulation is to be lauded, especially in the aftermath of the meltdowns at Fukushima. Such attention to safety, while vital to the security of the public, is also expected to add some time to the approval process for the AP1000 (on June 13, Westinghouse submitted version 19 of its design to the NRC⁴). This may delay the onset of construction of reactors planning to use this design, assuming it is formally approved by the NRC.

Southern Company is an electric utility currently waiting for final approval of the AP1000 design to receive authorization to begin safety-related construction of a proposed new nuclear power reactor at their existing Vogtle site in Georgia. According to media reports, the utility is concerned that this delay may cause the project to run over-budget and behind schedule.⁵ It is with specific reference to Vogtle that the aforementioned rule change has been proposed in a May 27 White Paper written by Balch & Bingham LLP and published by the NRC.⁶ The Department of Energy has approved an application for a loan guarantee of \$8.3 billion to Georgia Southern for the two proposed reactors, conditional on NRC approving the AP1000 design. If the AP1000 design is approved, this would allow pending applications for new reactors to go forward in Alabama, Florida, North Carolina, South Carolina, and Georgia.⁷

As I am sure you are aware, currently, the bulk of the construction of new nuclear reactors must wait until the NRC has issued a COL for the plant, which, for new reactor designs, also requires that the Design Certification Rule (DCR) for the reactor's design be final. In other words, most of the actual safety-related construction cannot begin until the approval for the design has been finalized by the NRC. It is possible, however, to be granted a Limited Work Authorization (LWA), which allows some construction so long as it is not related to any lingering safety questions and has undergone environmental scrutiny. Westinghouse has received an LWA for the AP1000 design, but is thus limited to "non-safety-related" construction

² <http://markey.house.gov/docs/3-7-11.ejmttonrc.pdf>

³ NRC Chairman Gregory B. Jaczko's Statement On AP1000 Review Issues". [NRC News.](http://www.nrc.gov/reading-rm/doc-collections/news/2011/11-087.pdf)

⁴ Westinghouse Press Release

<http://westinghousenuclear.mediaroom.com/index.php?s=43&item=274>

⁵ Georgia Reactor Project Hits Snag, Monitor Says". [The Wall Street Journal.](http://online.wsj.com/article/SB10001424052702303499204576390092809767506.html?mod=googlenews_wsj#articleTabs%3Darticle)

http://online.wsj.com/article/SB10001424052702303499204576390092809767506.html?mod=googlenews_wsj#articleTabs%3Darticle

⁶ See ADAMS accession number ML11152A189 at <http://www.nrc.gov/reading-rm/adams.html>

⁷ <http://www.nrc.gov/reactors/new-reactors/col.html>

activities. This consists mostly of digging and preparing the site, but generally falls short of beginning to lay the foundation for the structures. Construction and operating licensing, which used to be two separate processes, are currently both covered under the COL. This change was made at the behest of the nuclear industry and already truncates the public's ability to participate in the licensing proceeding. I am concerned that if the request from the Southern Company were to be approved, the opportunity for public involvement and thorough NRC oversight would be even further reduced.

The proposed rule change essentially redefines what "approval" of a reactor design means to include the affirmation of the design by the Commission, but to exclude the time following the affirmation when the NRC staff proceeds to incorporate any changes to the Design Certification Rule directed by the Commission. Typically, this process takes 1-2 months to complete, and upon completion the Final Rule is published in the Federal Register, which marks the Rule's final approval. Thus, the proposed rule change would save Southern Company the time it would otherwise have to wait before proceeding with the safety-related reactor construction activities. It would result in those activities proceeding before the NRC staff incorporates any changes – including important safety-related changes – into the Final Rule approving the design.

Not only would it be dangerous to approve this rule change, but seriously considering it would divert limited NRC resources away from work on safety, which is central to fulfilling the NRC's mission to protect the public. Instead, resources would be spent exploring a way for the nuclear industry to cut corners to save on construction costs and pass the risk on to the public. Notwithstanding the utilities' stated concerns about the costs of schedule delays, if the NRC were to identify critical safety-related changes that needed to be made to the final design as a result of its analysis, then additional costs or delays might also be incurred correcting those problems or back-fitting them into an already partially constructed reactor.

Accordingly, I urge you to deny the proposed rule change.

Thank you very much for your consideration of this important matter. If you have any questions or concerns, please have your staff contact Dr. Michal Freedhoff of my staff at 202-225-2836.

Sincerely,


Edward J. Markey