

EDO Principal Correspondence Control

FROM: DUE: 11/24/09

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FINAL REPLY:

Tom Clements
Friends of the Earth

TO:

Chairman Jaczko

FOR SIGNATURE OF :

** PRI **

CRC NO: 09-0553

Chairman Jaczko

DESC:

ROUTING:

Termination of Plutonium Fuel (MOX) Test by Duke
Energy Impacts MOX Use Validation
(EDATS: SECY-2009-0505)

Borchardt
Virgilio
Mallett
Ash
Mamish
Burns/Gray
Weber, NMSS
Orders, OEDO

DATE: 11/13/09

ASSIGNED TO:

CONTACT:

NRR

Leeds

SPECIAL INSTRUCTIONS OR REMARKS:

Note: This has been made publicly available in
ADAMS per SECY/OEDO/DPC.

EDATS

Electronic Document and Action Tracking System

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General Information

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OEDO Due Date: 11/24/2009

Other Assignees:

SECY Due Date: 11/26/2009

Subject: Termination of Plutonium Fuel (MOX) Test by Duke Energy Impacts MOX Use Validation

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CC Routing: NONE

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Other Information

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Signature Level: Chairman Jaczko

Sensitivity: None

Urgency: NO

OEDO Concurrence: YES

OCM Concurrence: NO

OCA Concurrence: NO

Special Instructions: Made publicly available in ADAMS per SECY/OEDO/DPC.

Document Information

Originator Name: Tom Clements

Date of Incoming: 11/10/2009

Originating Organization: Friends of the Earth

Document Received by SECY Date: 11/12/2009

Addressee: Chairman Jaczko

Date Response Requested by Originator: NONE

Incoming Task Received: Letter

**OFFICE OF THE SECRETARY
CORRESPONDENCE CONTROL TICKET**

Date Printed: Nov 12, 2009 10:48

PAPER NUMBER: LTR-09-0553 **LOGGING DATE:** 11/12/2009
ACTION OFFICE: EDO

AUTHOR: Tom Clements
AFFILIATION: SC
ADDRESSEE: Gregory Jaczko
SUBJECT: Termination of plutonium fuel (MOX) test by Duke Energy impacts MOX use validation

ACTION: Signature of Chairman
DISTRIBUTION: RF, SECY to Ack

LETTER DATE: 11/30/2009
ACKNOWLEDGED No
SPECIAL HANDLING: Commission Correspondence

NOTES: Made publicly available in ADAMS via EDO/DPC
FILE LOCATION: ADAMS

DATE DUE: 11/26/2009 **DATE SIGNED:**

EDO --G20090647



November 10, 2009

Commissioner Gregory Jaczko
U.S. Nuclear Regulatory Commission
Mail Stop O-16G4
Washington, DC 20555-0001

Termination of Plutonium Fuel (MOX) Test by Duke Energy Impacts MOX Use Validation

Dear Commissioner Jaczko:

I am writing to you in regard to the regulatory oversight of the Nuclear Regulatory Commission concerning the failed test of experimental plutonium fuel (mixed oxide fuel, MOX) in Duke Energy's Catawba Unit 1 reactor, a Pressurized Water Reactor (PWR) located near Rock Hill, South Carolina.

Under a 1999 contract with Shaw Areva MOX Services and a license amendment from the NRC, Duke in 2005 began the testing of four "lead test assemblies" (LTAs) made from U.S. weapons-grade plutonium manufactured in France. This was the first test ever of MOX made from weapons-grade plutonium. Some or all of the LTAs were required to be left in the Catawba reactor for three 18-month irradiation cycles, the same as uranium fuel, in order to provide the basis for evaluation by NRC of the batch use of MOX. Due to poor performance of the MS assembly material, all of the LTAs were withdrawn in May 2008 from the reactor after only two irradiation cycles and placed in the reactor's spent fuel pool. Then, in December 2008, Duke allowed its contract with MOX Services to lapse.

We have now confirmed that Duke Energy has made a decision not to reload the LTAs for a third 18-month cycle in the Catawba reactor, which has just gone down for refueling. This means that the NRC's validation of "batch" use of MOX fuel in PWRs will not be possible based on the Catawba results. Any data which was collected during the aborted MOX test and subsequent post irradiation examination may prove useful but it is totally insufficient from both a regulatory and safety perspective in regards to consideration of license amendment approval by the NRC for batch use equivalent to uranium fuel.

We would thus like to receive your assurance that the NRC will comply with all pertinent regulations concerning MOX testing and that 1) the failed MOX test can in no way be used by the NRC as a basis for consideration of issuance of a license amendment for 3-cycle batch use and 2) that any future test(s) of experimental MOX fuel will have to take place for a full 3 irradiation cycles in each reactor type being considered by DOE or any contractor for batch MOX use.

Thanks very much for your attention about this matter and for your response to the questions posed in this letter.

Sincerely,

Tom Clements
Southeastern Nuclear Campaign Coordinator

1112 Florence Street • Columbia, SC 29201
803.834.3084 phone & fax • tomclements329@cs.com • www.foe.org