

Criscione, Lawrence

From: Criscione, Lawrence
Sent: Thursday, January 05, 2012 5:55 PM
To: Leeds, Eric
Cc: Collins, Elmo; Zimmerman, Roy; Ostendorff, William; Jaczko, Gregory; Monninger, John; Lee, David; Weber, Michael; Virgilio, Martin
Subject: Callaway Plant Passive Reactor Shutdown and FOIA 2012-0034 Redaction

Eric,

On October 21, 2003 the US NRC licensed operators at Callaway Plant inadvertently allowed the reactor to passively shut down and then for 67 minutes failed to notice that the reactor was no longer critical – until a Source Range Nuclear Instrument automatically energized, causing a Main Control Board alarm to annunciate. Upon receipt of the MCB alarm at 11:25 am annunciating the automatic energization of the channel 2 SRNI, the US NRC licensed operators took 40 minutes to insert the control banks. For forty minutes, the reactor was in the source range with its control rods at their last critical rod heights while the US NRC licensed Reactor Operators were assigned ancillary tasks such as commencing a containment minipurge and aligning steam plant equipment to a more energy efficient shutdown alignment. During this time frame (11:25 am to 12:05 pm) there was no formal calculation performed to show that Xenon-135 levels would remain sufficient to keep the reactor from inadvertently restarting (i.e. a formal Shutdown Margin calculation was not performed until 12:55 pm). Even though “after-the-fact” analysis performed four years later indicate that Xenon-135 levels were sufficient, AT THE TIME no analysis was done and the operators were essentially relying on informal estimations and thumbrules. To my knowledge, Region IV agrees with the statements made in this paragraph (other than they refuse to use the word “passive” to characterize the mechanism which shut down the reactor).

I have copied Elmo Collins on this email. I do not expect him to respond to me, but if I am mischaracterizing Region IV’s position I hope that he will respond to you.

Although Region IV recognizes that the Callaway Plant reactor operators (whom they examine and license) were not cognizant of the condition of the nuclear fission reaction for over an hour, they have been unable to cite the licensee for anything related to:

- (1) inadvertently allowing the reactor to passively shut down and failing to notice it for 67 minutes
- (2) informally relying on Xenon-135 for 40 minutes to keep the reactor from restarting
- (3) failing to document the incident in the plant’s corrective action process in 2003
- (4) allowing a similar event to repeat at Callaway Plant on June 17, 2005
- (5) failing to share details of either the October 21, 2003 or the June 17, 2005 incident with the industry through the Institute of Nuclear Power Operations
- (6) intentionally misleading our investigators from the Office of Investigations during sworn testimonies on March 31 and April 1, 2008.

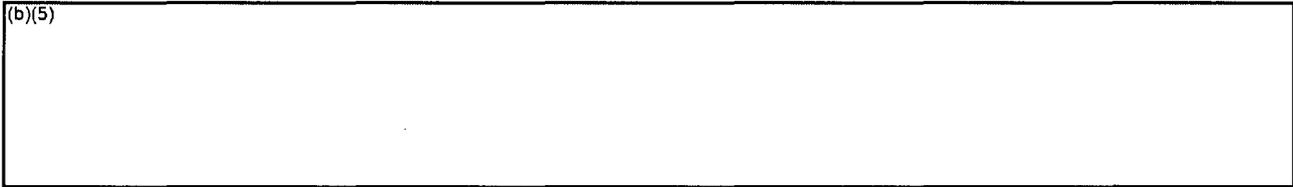
I am sure you recognize, as I do, that the six items in the preceding paragraph are unsatisfactory behavior for a licensee. Yet I am also sure you recognize, as I do, that per the current way the Reactor Oversight Process is implemented there is little that Region IV can do regarding these six items.

For my part, in an April 30, 2010 10CFR2.206 petition (ML101230100) I attempted to improve the operation of our nation’s reactor plants by prohibiting sustained operation of the reactors during MODE 2-Descending. Your office bureaucratically closed that petition and declined not only to implement any of my suggestions but also to come up with any of your own solutions. Even though you may recognize it is inherently unsafe for the licensed operators of a 3565 MWth commercial reactor to be unaware it is in the source range with its control rods at their last critical rod heights and with no source range nuclear instruments energized and no formal Shutdown Margin calculation in place, NRR has

taken no action to ensure that should this condition occur at a US reactor plant in the future the licensee will be in violation of NRC regulations.

Today I received a FOIA request for which you are listed as the "Denying Official". Among the redacted information were the following sentences:

(b)(5)



The reason given for the above redaction is "*Disclosure of predecisional information would tend to inhibit the open and frank exchange of ideas essential to the deliberative process.*"

The redacted portions of FOIA 2012-0034 relate directly to my April 30, 2010 10CFR2.206 petition. I would like to know how the disclosure of these redacted sentences would inhibit the open and frank exchange of ideas essential to the deliberative process. I would also like to know whether or not NRR has anything planned for ensuring that the next time NRC licensed operators take over an hour to recognize their reactor is no longer critical – and thus is no longer passively responding to positive reactivity additions through Temperature-Reactivity feedback – that they are in violation of NRC regulations.

If appropriate, I would appreciate meeting with you to gain an understanding of NRR's position on the October 21, 2003 passive reactor shutdown and the lessons (if any) which the NRC has learned from it. I would also like to gain insight into how Exemption 5 applies to the redacted sentences from FOIA 2012-0034.

Those copied on this email are individuals with whom I have discussed the October 21, 2003 Callaway Plant passive reactor shutdown. I do not expect a reply from any of them, but if they have insights for me then I would appreciate hearing them.

Thank you,



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