

March 31, 2011

Dr. Gregory B. Jaczko, Chairman
United States Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Dr. Jaczko:

On December 13, 2010 I participated in a meeting in which Larry Criscione, a former Senior Reactor Operator at the Callaway nuclear plant, asked the Nuclear Regulatory Commission to issue a "Demand for Information" to Ameren to gain answers to concerns Mr. Criscione has regarding a passive reactor shutdown which occurred on October 21, 2003. Mr. Criscione has expressed the following concerns to me:

- The reactor passively shut down around 10:18 am and the NRC licensed operators failed to take any action to actively control the nuclear fission reaction for 106 minutes. Mr. Criscione believes the passive shutdown of the reactor was unintentional and originally went unnoticed until they received an alarm in the control room at 11:25 am. Mr. Criscione also believes it took 67 minutes for the NRC licensed operators to recognize that the reactor they were monitoring had shut down.
- Once the operators received an alarm alerting them the reactor was "in the source range", the operators still took an additional 39 minutes to actively ensure the reactor remained shutdown by inserting the control rods. Mr. Criscione believes this 39 minute delay was intentionally effected by the operators in order to give the upper management of Callaway Plant the impression that the reactor was being shut down at noon and thereby cover up the inadvertent passive shutdown which had occurred nearly two hours earlier.
- Mr. Criscione believes that the Operations Manager (David Neterer) was in the control room at 11:25 am when the operators first realized that the reactor was in the source range and that he did nothing to ensure the passive shutdown was reported and analyzed in the plant's Corrective Action Program. Mr. Criscione claims that the US NRC has

never interviewed Mr. Neterer with regard to the October 21, 2003 passive reactor shutdown to determine what role, if any, he played in the event.

- Mr. Criscione claims that, during the 106 minutes that the reactor was shutdown with its control rods still withdrawn, there were no calculations performed to verify that there were sufficient amounts of neutron absorbers in the core to prevent the reactor from inadvertently restarting. In a February 26, 2010 letter to Mr. Criscione the NRC refuted this claim, claiming instead that:

The inspectors noted that the crew had completed a shutdown margin verification just prior to tripping the main turbine, as required by the shutdown procedure. The shutdown margin verification ensured that had a design basis accident occurred at that time, adequate negative reactivity was available to maintain the plant shutdown.

Mr. Criscione claims that no “*shutdown margin verification*” exists. When Mr. Criscione requested a copy of the *shutdown margin verification* via the Freedom of Information Act, he was informed that the NRC had no record of the requested document.

- Nick Taylor of the US Nuclear Regulatory Commission supposedly investigated Mr. Criscione’s concerns. Mr. Criscione claims that Mr. Taylor never interviewed him as part of his investigation and, further, that he has no recollection of ever meeting or speaking to Mr. Taylor.

Mr. Criscione has requested that I assist him in obtaining answers to the questions below. Although the NRC may have touched on some of the questions below in their long and technical responses to Mr. Criscione, please provide me answers to the following questions in language that a member of the public might reasonably understand. Also, please begin each answer with a “yes” or a “no” so it is transparently obvious to me what your position is:

1. Is it the NRC’s opinion that on October 21, 2003 the reactor at Callaway Plant shut down due a combination of the passive buildup of radioactive Xenon-135 and a 4°F passive rise in average reactor coolant temperature?
2. Is it the NRC’s opinion that, prior to manually tripping the main turbine around 10:13 am on October 21, 2003, the NRC licensed operators at Callaway Plant recognized the reactor was going to subsequently passively shut itself down due to a lack of steam demand and the buildup of Xenon-135?
3. Is it the NRC’s opinion that, as reactor power lowered from the power range to the source range on October 21, 2003, the NRC licensed operators at Callaway Plant were aware the reactor had passively shut down?
4. Is it the NRC’s opinion that, during the 45 minutes (from 10:39 to 11:25 am) the reactor was in the source range with the control rods at their last critical rod heights and with no

Source Range Nuclear Instruments energized, the NRC licensed operators at Callaway Plant were aware the reactor was no longer critical?

5. Is it the NRC's opinion that it is not relevant whether or not from 10:18 to 11:25 am the NRC licensed operators were aware of the status of the nuclear fission reaction of the reactor they were monitoring?
6. Is it the NRC's opinion that upper management of Callaway Plant was, on October 21, 2003, aware that the reactor had passively shut down around 10:18 am?
7. Is it the NRC's opinion that Dave Neterer, the Operations Manager, was not in the Control Room when the first channel of Source Range Nuclear Instruments energized at 11:25 am?
8. Did the NRC interview Dave Neterer as part of its investigation of the October 21, 2003 passive reactor shutdown?
9. According to Mr. Criscione, Shutdown Margin calculations at Callaway Plant are Quality Assurance records which must be stored for decades. Mr. Criscione claims that no Shutdown Margin calculation was performed "*just prior to tripping the main turbine*" on October 21, 2003 whereas the NRC claims that one was performed. Is the NRC willing to request a copy of the Shutdown Margin calculation that was in effect at Callaway Plant during the 106 minute delay and provide me a copy of that calculation?
10. Did Nick Taylor of the US NRC investigate any of Mr. Criscione's allegations? If so, did Nick Taylor interview Lawrence Criscione as part of his investigation?

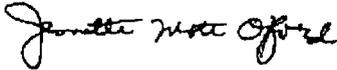
Again, please begin the answer to each of the above questions with a "yes" or a "no" so it is transparently obvious what the NRC's position is on each of the above items.

If possible, I would like the NRC to address the answers to the above questions in a public meeting in Missouri. I would appreciate that this meeting be held in either St. Louis, Fulton, Jefferson City or Columbia and that there be provisions made for members of the public to participate via a telephone bridge line. If appropriate, combining this meeting with the annual assessment public meeting which the NRC holds with AmerenUE in late spring is acceptable to me; otherwise please hold a separate meeting on this incident.

Like Mr. Criscione, my constituents and I want clear and transparent answers as to why an operating crew at Callaway Plant relied on the passive properties of nuclear waste products to keep their reactor from restarting. From Mr. Criscione's explanation of the incident, it appears there was no benefit to be gained from not inserting the control rods immediately following cessation of electrical generation on October 21, 2003. We (concerned citizens of Missouri) understand that humans make errors, and we understand that nuclear reactor plants are designed to operate safely in spite of human errors. But we do not understand why our federal regulator will not transparently share the findings from its investigations. Please provide transparent answers to the requested questions. We know that no regulations were violated. We know that

the public wasn't in any imminent danger. However, we do not know what the NRC's opinion of Ameren's operation is and whether or not the NRC believes the operators understood the condition of the reactor they were supposed to be monitoring.

Thank you,



Jeanette Mott Oxford

cc: Dennis Kucinich, United States Congress
Lewis Mills, Missouri Public Counsel
David Lochbaum, Union of Concerned Scientists
Kay Drey, Beyond Nuclear
Louis Clark, Government Accountability Project
Kathleen Logan Smith, Missouri Coalition for the Environment
Michael Berg, Sierra Club
Henry Robertson, Great Rivers Environmental Law Center
Janet Saidi, University of Missouri