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Ft Calhoun: 100% chance core damage at 1010 ft. Now 1007 ft.

By [Deborah Dupre](#), Human Rights Examiner

June 27, 2011 10:48 pm ET

There is a 100% chance of reactor core damage if floodwaters go above 1010 ft. at Fort Calhoun Nuclear Station according to the Nuclear Regulatory Commission (NRC) in 2010. The Missouri River is now approximately 1,007 ft. and expected to rise but the plant is again operating on the grid and, due to NRC's work last year, appropriate measures taken make the atomic plant safer during this season's epic flood.

Although the Missouri River is not expected to get substantially higher, it may not get lower anytime soon and a "new worst case" looms. Gregory Jaczko, chairman of the Nuclear Regulatory Commission, met with Army Corps of Engineers Monday. He did not get encouragement [according to *The New York Times*](#).

Jaczko said after his tour Monday that the plant is safe but continues facing "challenges." A main challenge goes back nearly two years when the NRC questioned OPPD's ability to handle a potential flood, according to [Nebraska Watchdog's](#) Joe Jordon who interviewed Jaczko. Indicating more work needs to be done, Jaczko said about Fort Calhoun "has made progress in that area."

The swelling Missouri River is expected to go no higher than 1,008 feet above sea level, six feet lower than the point at which "safety systems" would fail according to the NRC chief.

Kudos to NRC

Today, in the *Monthly Review*, Dave Lochbaum praised the work of the Nuclear Regulatory Commission (NRC), highlighting that during routine weather protection readiness inspections in 2010, NRC's inspectors found a "commitment in the plant's design and licensing reports stating that vital safety equipment located in the auxiliary building would be protected against a flood rising to 1014 feet above mean sea level." (See: "[The NRC in Action at Fort Calhoun](#)," D. Lochbaum)

"The NRC's inspectors determined that the plant's design did not fulfill this commitment," wrote Lochbaum, Director of the Nuclear Safety Project at the Union of Concerned Scientists.

"In fact, NRC estimated there was a 100% chance of reactor core damage caused by a flood rising above 1010 feet."

According to Lochbaum, OPPD contested NRC's report. OPPD's calculations showed the chance of core meltdown was merely 19% for floods above 1010 feet and up to and including 1010.8 feet and only 23.9% for floods above 1010.8 feet to 1014 feet.

Due to NRC's actions, tangible changes in flood protection measures at Fort Calhoun have occurred.

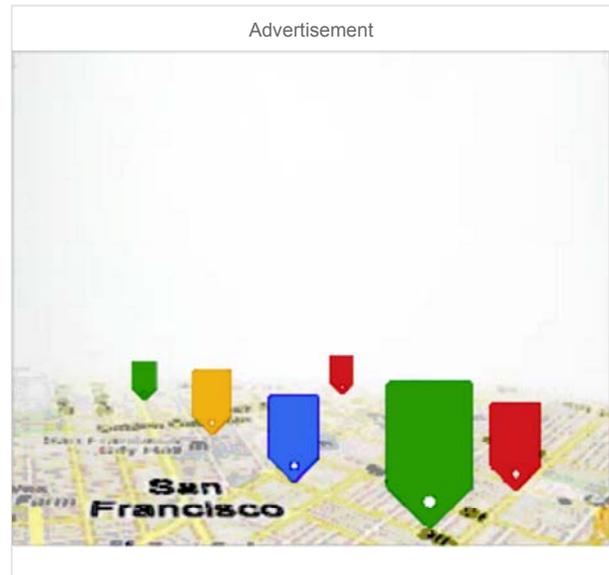
"Workers at Fort Calhoun procured more portable pumps, fabricated new flood plates to protect against flooding up to 1014 feet, verified readiness of sandbagging equipment and materials, and took additional flood protection steps."

NRC issued a Yellow finding to Fort Calhoun's owners for the flood protection shortcomings. Yellow findings are the second-most serious.

There were only two Yellow findings and no Red findings (the most serious) in 2010.

Lochbaum concludes today that NRC took what it found at Fort Calhoun very seriously and forced its owner to remedy the shortcomings.

Monday, spokesman for Fort Calhoun Nuclear Plant Jef Janson stated, "Plant workers briefly switched to diesel backup generators to keep nuclear fuel at the site cool because water had gotten too close to electrical transformers.



The plant was again drawing power from the electrical grid, he said.

Although the Union of Concerned Scientists cannot say NRC's actions already prevented an accident at Fort Calhoun or that they will prevent one should the flood waters continue to rise, what it does say is that the NRC did its job last year.

Missouri River water now surrounds Fort Calhoun's spent fuel pool building and its main reactor building after its "aqua-dam" was penetrated and collapsed early Sunday.

New worst case looms

According to the *New York Times* Friday in its report, "[A Nuclear Plant's Flood Defenses Trigger a Yearlong Regulatory Confrontation](#)," NRC is yet to complete its evaluation of the flood defenses installed at Fort Calhoun nuclear plant and another flooding matter "still under investigation."

Fort Calhoun Plant's vulnerability under today's flood scenarios isn't black and white, said Gerond George, a senior NRC reactor inspector who had been to the site last week.

New York Times reported Friday, "The NRC and OPPD have different interpretations of the utility's obligations under its license, and the response of the Fort Calhoun staff to a flooding emergency cannot be precisely predicted" according to the NRC.

Late Monday, Matthew Wald for the *New York Times* [reported](#) that technically, what Fort Calhoun Plant is undergoing is not a flood but it is a 'water event.' as NRC classifies it and the vital plant equipment is dry according to NRC Chairman who spent the day there today.

"But Fort Calhoun has clearly been outflanked by the Missouri River, first at its front door and now at its back door as well. The only access route to the plant is over a sinuous path of catwalks built over the submerged parking lot and walkways in recent weeks."

"We don't like to give worst-case scenarios anymore because every time it rains, we get a new worst case," said Col. Robert J. Ruch, commander of the Omaha District.

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