

## Midwest Floods: Both Nebraska Nuclear Power Stations Threatened

Theme: Environment

By <u>Rady Ananda</u> Global Research, June 16, 2011 16 June 2011

Tens of millions of acres in the US corn belt have flooded, which will spike the cost of gas and food over the next several months. Worse, several nuclear power plants sit in the flooded plains. Both nuclear plants in Nebraska are partly submerged and the FAA has issued a no-fly order over both of them.

On June 7, the Fort Calhoun Nuclear Power Plant <u>filed an Alert</u> with the Nuclear Regulatory Commission after a fire broke out in the switchgear room. During the event, "spent fuel pool cooling was lost" when two fuel pumps failed for about 90 minutes.

On June 9, Nebraska's other plant, Cooper Nuclear Power Station near Brownville, <u>filed a</u> <u>Notice of Unusual Event</u> (NOUE), advising it is unable to discharge sludge into the Missouri River due to flooding, and therefore "overtopped" its sludge pond.

The <u>Fort Calhoun TFR</u> (temporary flight restriction) was issued the day before the nuclear Alert. The FAA issued another <u>TFR</u> on June 7 for the Cooper plant.

Other flood-related TFRs were issued <u>on June 13</u> for the Garrison Dam in Bismarck, North Dakota and <u>on June 5</u> for rescue operations in Sioux City, SD.

Under the <u>four-level</u> nuclear event scale used in the US, an NOUE is the least hazardous. In an Alert, however, "events are in process or have occurred that involve an actual or potential substantial degradation in the level of safety of the plant," according to the NRC.

Despite some media reports, Ft Calhoun is **not** at a stage 4 level of emergency, which under the US scale, would be "actual or imminent substantial core damage or melting of reactor fuel with the potential for loss of containment integrity."

If that rumor refers to the <u>seven-level</u> International Nuclear and Radiological Event Scale, a Level 4 incident requires at least one death, which has not occurred.

Continued flooding does threaten the plants, however. As nuclear engineer Arnie Gundersen explains in this <u>video</u>, cooling pumps must operate continuously, even years after a plant is shut down.

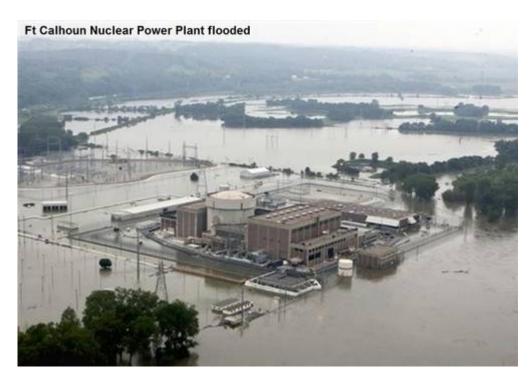
One group, the <u>Foundation for Resilient Societies</u>, has proposed solar panels and other highreliability power sources to supply backup cooling for the fuel pools at nuclear plants.

Thomas Popik told <u>Food Freedom</u> that FRS "invited the Chief Nuclear Officers of nearly every nuclear power utility to comment" on their proposal and only heard back from one operator.

Otherwise, not one CNO has officially responded to the NRC-filed proposal.

While hindsight might be 20/20, the lack of foresight can be blindingly deadly when it comes to radioactive waste that lasts tens of thousands of years for the measly prize of 40 years of electricity.

The Ft. Calhoun plant — which stores its fuel rods at ground level according to <u>Tom Burnett</u> — is already partly submerged.

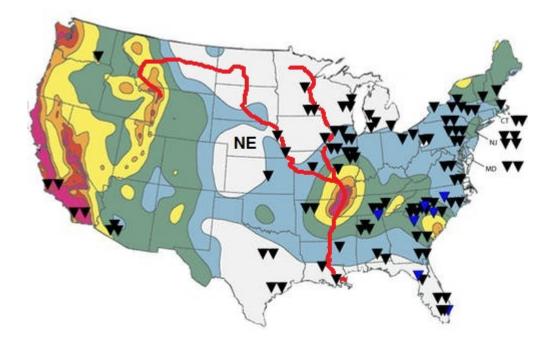


"Ft. Calhoun is the designated spent fuel storage facility for the entire state of Nebraska...and maybe for more than one state. Calhoun stores its spent fuel in ground-level pools which are underwater anyway – but they are open at the top. When the Missouri river pours in there, it's going to make Fukushima look like an x-ray."

In 2010, Nebraska stored 840 metric tons of the highly radioactive spent fuel rods, reports the <u>Nuclear Energy Institute</u>. That's one-tenth of what Illinois stores (8,440 MT), and less than Louisiana (1,210) and Minnesota (1,160). But it's more than other flood-threatened states like Missouri (650) and Iowa (420).

"But that's not all," adds Burnett. "There are a LOT of nuclear plants on both the Missouri and Mississippi and they can all go to hell fast."

The black triangles in the below image prepared by the <u>Center for Public Integrity</u> show the disclosed locations of nuclear power plants in the US, minus research and military plants. (Red lines indicate both Mississippi and Missouri rivers):



Fort Calhoun is the <u>smallest nuke plant</u> in the nation, with one pressurized water reactor generating less than 500 MW. The NRC <u>relicensed</u> the plant thru 2033, giving it a lifespan of 60 years. Cooper was first commissioned in 1974 and has been <u>relicensed</u> thru 2034, also giving it a 60-year lifespan.

Since June 7, Cooper has been running under "<u>Abnormal Operating Procedures</u>" when river depth topped 38.5 feet (895 feet MSL), flooding the north access road. Sandbags and extra diesel fuel were brought in, reports <u>WOWT</u>.

As of <u>1:15 pm ET on June 16</u>, the river height of just over 40 feet near Cooper is still 5 feet below the elevation required for a plant shutdown. Near Fort Calhoun, the river is even lower as of <u>1:15 pm ET on June 16</u> (under 32 feet).

In 1993, the Cooper Nuclear Station was critically flooded, prompting an emergency shut down:



<u>Photo</u>: Diane Krogh/Lighthawk.

The Midwest floods will seriously impact food and gas prices over the next year. Angela Tague at <u>Business Gather</u> suspects the lost farmland is behind the price spike to \$7.55 a bushel for corn — twice last year's price. Tague notes that the corn shortage will have far-reaching consequences:

"Corn is a key ingredient in ethanol gasoline, feeds America's livestock and is found in many food products including soft drinks and cereal. Prices will undoubtedly increase steadily at the grocery store, gas pump and butcher shop throughout the summer as Midwest flooding continues along the Missouri River basin. Not only are farmers losing their homes, land and fields — ultimately their bank accounts will also suffer this season."

And let's not forget all that genetically modified seed washing south to contaminate natural fields.

<u>Click here</u> to hear the entire 40-minute podcast of Robert Knight's 5 o'clock Shadow radio show interviewing Arnie Gundersen of <u>Fairewinds Associates</u>.

<u>Click here</u> to hear Gundersen's testimony before the Nuclear Regulatory Commission Advisory Committee on Reactor Safeguards on Thursday May 26, 2011.

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