

# Nuclear Power Plants in the Path of Tornadoes

April, 2011

## NUCLEAR TORNADOS

### TVA NUCLEAR PLANTS (50 Mile Radius)

**Browns Ferry Nuclear**  
 50-mile pop. 977,941  
 3 GE Mark I Reactors  
 1973,1974,1976  
 3.5 million lbs. waste  
 3.1 million lbs. 'spent' fuel in cooling pools

**Sequoyah Nuclear**  
 50-mile pop. 1,079,868  
 2 PWR Reactors  
 1980,1981  
 2.4 million lbs. waste  
 1.79 million lbs. 'spent' fuel in cooling pools

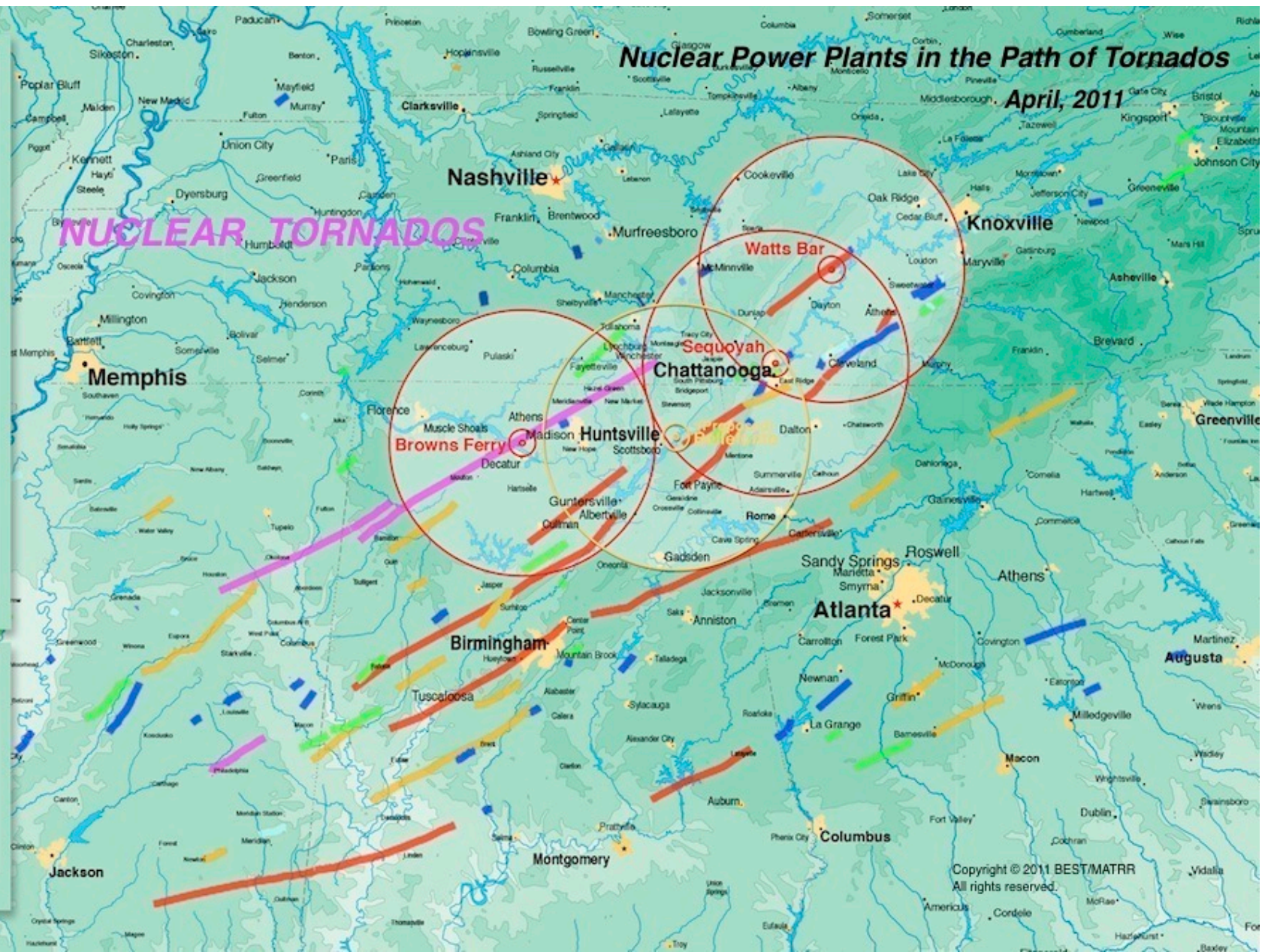
**Watts Bar Nuclear**  
 50-mile pop. 1,186,648  
 1+ PWR Reactor, 1996  
 694,456 pounds 'spent' fuel in cooling pools

[TVA and NRC data 2010]

### APRIL 27, 2011 TORNADO MAGNITUDES

- EF-5: █
- EF-4: █
- EF-3: █
- EF-2: █
- EF-1: █
- EF-0: █

[NOAA Tornado Track]



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## Nuclear Tornadoes?

A stampede of 200 tornadoes tore through the southeastern U.S. on April 27, 2011, causing massive damage and killing 319 people. There were fifteen EF-4 and four EF-5 tornadoes – the strongest tornadoes known to man.

One EF-5 tornado roared by Browns Ferry Nuclear Power Plant, touching down very near its three Fukushima-style raised Fuel Cooling Pools – with only a sheet metal roof above them.

What if this most powerful tornado (or an airliner) had made a direct hit on the large raised Cooling Pools at Browns Ferry Nuclear Plant, not just on its power line towers?

These raised Fukushima-style Cooling Pools are holding over 3 million pounds of enriched fuel, requiring constant electricity and water, and are significantly more radioactive than the Reactor Cores – but have only sheet metal roofs for overhead containment security.

Fuel pellet pieces were found a mile away from the Fukushima pools after their explosions. What if a powerful tornado sucks radioactive water from nuclear cooling pools or flings fuel pellets into our valley neighborhoods? Will the public hear the truth about the dangers?

TVA did not tell the truth to the public after the tornadoes of April 27, 2011, saying Browns Ferry emergency procedures performed “as they were designed to do.” Not according to required Nuclear Regulatory Commission reports. (See NRC Event Numbers 46793, 46801, 46805.)

Some of what went wrong after the tornadoes at Browns Ferry Nuclear Plant, 28 miles from Huntsville’s city center, with nearly one million residents within its 50 mile radius:

1. Only 12 of the required 100 off-site Emergency Sirens actually worked on that day.
2. Two of eight Emergency Diesel Generators failed that day, one for the fire pump and one for the security station and sirens. A 3rd generator shutdown the next day – totaling a 37.5% failure.
3. On April 27, a Main Steam Isolation Valve indicator failed on Unit 3 – so operators could not tell if the valve had closed as it should during the reactor emergency shutdown.
4. On April 27, hours after Unit 1 automatically shut down due to loss of the electrical grid, it received a second automatic shut down signal due to a low water level inside the reactor vessel. TVA said that the operating crew was “distracted,” allowing the water level to boil down too low.
5. On April 28, an electrical part failure on Unit 1 initiated an automatic closer of Shutdown Cooling emergency valves. Power was restored after 47 minutes.
6. On May 2, Unit 1 received an 'A' Emergency Generator output breaker trip, resulting in loss of Shutdown Cooling. Power was restored after 57 minutes.

Contact: [best@matrr.org](mailto:best@matrr.org)

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