

**Rulemaking Comments****PRM-50-104  
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**From:** Sally Shaw [acer8sac@comcast.net]  
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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

In the United States, emergency planning for nuclear emergencies has remained largely static since 1980, when regulations pertaining to emergency planning were initially enacted after the Three Mile Island accident. These plans are outdated and do not adequately protect the health and safety of United States citizens. The estimates of early mortality and latent mortality are based on a flawed and outdated understanding of low level radiation health effects that applies only to "reference man" and has been rejected by the BEIR VII study, which established that women and children are many times more vulnerable than "reference man". NRC must revise its regulations to reflect current scientific understanding of the risks to women, children, the immune-compromised and the elderly. The most vulnerable, not the least, should be the basis of regulatory standards.

As Fukushima and Chernobyl showed, the current 10-mile emergency evacuation zone does not adequately protect from the effects of ionizing radiation, despite what computer modeling and simulations may demonstrate. The accident at Fukushima resulted in sustained and large releases of radiation for a period of several weeks, and Chernobyl's exclusion zone is wider than this 10 mile limit. Sheep in Scotland are still interdicted for sale because of the fallout from Chernobyl.

More than 150,000 people evacuated near Fukushima, from as far as 25 miles away--50,000 of those, according to the Associated Press (5/16/12) evacuated from outside the mandatory evacuation zones. Meanwhile, the U.S. Nuclear Regulatory Commission and U.S. State Department recommended that Americans within 50 miles of Fukushima evacuate. Even so, as much as 80% of the airborne radiation released at Fukushima blew directly over the Pacific Ocean, rather than populated areas. The NRC cannot rely on favorable wind patterns to protect the American public.

The ingestion pathway EPZ is also grossly inadequate, and should be expanded to 100 miles. Food contamination at both Fukushima and Chernobyl has been far reaching and persistent. In Chernobyl, radionuclides tainted crops and animal products hundreds of miles away. More than 25 years after that accident, sheep in Wales--hundreds of miles away--remain interdicted. Similarly, in Fukushima contamination of rice, milk, and other food has been exhibited 100 miles and more from the site.

Current NRC regulations do not require that emergency exercises take into consideration an initiating or concurrent natural disaster that might further complicate accidents and subsequent evacuation efforts. At Fukushima, a natural disaster (coupled with faulty reactor design) initiated the disaster. Both Fukushima and the U.S. experience with Hurricane Katrina demonstrate the difficulties associated with evacuating when a natural disaster strikes that causes roadways to wash out.

Weather patterns are growing more extreme and dangerous. In 2011, hurricanes, earthquakes, and flooding caused damage to U.S. nuclear reactors. As such, emergency preparedness drills and exercises should include regionally appropriate natural disasters such as droughts, flooding, blizzards, earthquakes, wildfires, and hurricanes.

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It is for all these reasons that I request that the NRC adopt the proposed rule expanding emergency planning zones to the respective 25, 50, and 100 mile zones and add a new requirement that emergency exercises include scenarios of regionally appropriate initiating or concurrent natural disasters.

Thank you,

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