

Rulemaking Comments**PRM-50-104
(77FR25375)**DOCKETED
USNRC

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Sent: Wednesday, July 11, 2012 4:24 PM
To: Rulemaking Comments
Subject: Docket ID NRC-2012-0046

July 11, 2012 (4:30 pm)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

It should be understood that it is standard procedure for emergency management professionals to evaluate and learn from incidents, emergencies, and disasters that could affect the jurisdictions to which they are responsible. Appropriately, there have been volumes written about the careful analysis of the facts surrounding disasters and the related enhancements to planning, training, and exercising that have come about as a result (e.g., National Incident Management System, Federal Response Framework, Post Katrina Emergency Management Reform Act, Etc.). Wherever applicable lessons can be gleaned from a disaster, it is not only appropriate to apply them; we have a duty to do so. For that very reason, the NRC conducted reviews of the Chernobyl, September 11th, and Fukushima disasters and determined that several changes were appropriate including physical hardening of nuclear facilities and emergency preparedness enhancements for both on-site and off-site entities. Many of those changes have now been implemented while several others are in process.

While extremely valuable as case studies, the Chernobyl, and Fukushima nuclear plant disasters occurred as a result of a set of discrete circumstances under unique parameters that cannot be applied to nuclear sites in the USA in broad stroke fashion. Like hurricane evacuation zones, the 10 and 50 mile emergency planning zones function as a planning basis. The totality of the circumstances surrounding an incident matter greatly when implementing protective measures.

Emergency managers work tirelessly to protect communities from the threats to which they are vulnerable but they work within the confines of probability, variability, and practicality; not in absolutes. The petitioner suggests an increase to the size of nuclear plant emergency planning zones because there may be some degree of hazard beyond the existing zones. If absolute risk were the measure for every imaginable threat, the entire U.S. would be an evacuation zone because of the risk from hurricane, earthquake, tornado, etc.

The petitioner suggests that expansion of evacuation areas reduces risk doing so without a solid science-based foundation may increase risk, exacerbate costs, and disrupt communities well beyond the EPZs. Placing a large number of people on roadways will invariably result in increased injuries and fatalities from motor vehicle accidents. Evacuations also raise anxiety levels and typically increase exertion levels as people carry out preparations in a rushed manner. Undoubtedly, some frail and vulnerable individuals will be placed at increased risk for injury and death. Evacuating hospitals, nursing homes, prisons, and other high-density, high-risk facilities carries an even greater risk.

Larger evacuation areas increase clearance times: in some cases dramatically. There is no debate that the largest concentrations of radioactive material will be in areas closest to the point of release. Increasing the size of evacuation areas will result in longer evacuations times which translates to people in closer proximity to the release point (i.e., the ones with greater risk of exposure) receiving larger doses as those further away clog roadways even though their risk of radiation exposure is minimal – if any.

More important than the size of the EPZs are the functions and processes in place to protect the public and the environment: alert and notification, transportation, communication, coordination, decision-making, etc. Inherent are the elements of flexibility, scalability, and adaptability. Existing regulations, oversight, inspections, and evaluations provide reasonable assurance that radiological emergency preparedness programs meet the criteria. Jurisdictions have demonstrated their ability to implement the above mentioned functions and processes for a multitude of disasters including hurricanes, wildfires, floods, hazardous materials spills, and others. Jurisdictions routinely prepare for and practice protection of populations around nuclear plants. The NRC has done a thorough job assessing the threat and translating the lessons learned from the Chernobyl, September 11th, and Fukushima disasters into regulations.