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NRC Seeks Public Comment on Spent Fuel Pool Study

The NRC is interested in comments on a draft study examining if faster removal of spent reactor fuel from pools to dry cask storage significantly reduces risks to public health and safety. Based on previous research showing earthquakes present the dominant risk for spent fuel pools, the draft study evaluated how pool leakage from a potential earthquake might cause the spent fuel to overheat and release radioactive material to the environment. The draft study concludes there is approximately a one-in-10-million-years chance of a severe earthquake causing a radioactive release from the pool at the site examined.

The NRC began the study following the March 2011 Fukushima nuclear accident, where the spent fuel pools survived a strong earthquake. The study considered a spent fuel pool similar to those at Fukushima and 23 other U.S. reactors, and an earthquake several times stronger than what the pool's design considered. The study examined both a "full" spent fuel pool and one with less fuel and more spacing between individual fuel assemblies, as well as emergency procedures for adding water to the pool in the unlikely event that the earthquake causes the pool to lose water.

"Our detailed analysis showed that even a very strong earthquake has a low probability of damaging the pool studied to the point of losing water," said Brian Sheron, Director of the NRC's Office of Nuclear Regulatory Research. "The draft study also shows that even if this particular pool was damaged, the fuel could be kept safely cool in all but a few exceptional circumstances. We'll use the final study to inform further analysis of U.S. spent fuel pools."

In cases where the analysis led to fuel damage, the draft study concluded existing emergency procedures would keep the population around the plant safe. Those emergency measures could mean relocating people from a large area of potentially contaminated land. The study also examined the potential benefits of moving all spent fuel older than five years (and therefore easier to cool) into storage casks within five years. For the scenarios examined, the study concluded faster fuel transfer to casks would not provide a significant safety benefit for the plant studied. The NRC will incorporate public comments and use the final study in a broader regulatory analysis of the spent fuel pools at U.S. operating nuclear reactors as part of its Japan Lessons-Learned activities.

The public and interested groups can comment on the study, using **Docket ID NRC-2013-0136** on the [Regulations.gov](http://www.regulations.gov) website, for 30 days following publication of a notice in the *Federal Register*, expected shortly. Comments can also be submitted, using the Docket ID, via mail to:

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The study will be available on the Regulations.gov website, as well as in the agency's electronic document database, [ADAMS](#), under accession number [ML13133A132](#).