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Docket: NRC-2016-0179

Revisions to Transportation Safety Requirements and Compatibility with International Atomic Energy Agency Transportation Requirements

Comment On: NRC-2016-0179-0005

Revisions to Transportation Safety Requirements and Compatibility with International Atomic Energy Agency Transportation Standards; Notice of Issues Paper, Public Meeting, and Request for Comment

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Comment on FR Doc # 2016-27944

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General Comment

7. Fire safety regulations for irradiated nuclear fuel shipping casks are inadequate. NRC's design criteria require casks to survive a 1,475 degree Fahrenheit (800 degree Celsius) fire, lasting only 30 minutes. However, there are combustible materials on the roads, rails, and waterways that burn much hotter than 1,475 F. Diesel fuel, as but one example -- and found in abundance in transit across the U.S. -- burns at 1,800 F. And real-world fires have burned for much longer than 30 minutes.

For example, in July 2001, a train tunnel fire under downtown Baltimore, Maryland burned for an entire day, with temperatures at our above 1,475 degrees persisting for many hours on end. The State of Nevada Agency for Nuclear Projects commissioned Dr. Marvin Resnikoff et al. at Radioactive Waste Management Associates to determine if an irradiated nuclear fuel shipping container, had one been on board that ill-fated train, would have endured the fire without breaching and releasing hazardous radioactivity into the escaping smoke, to fallout downwind. The study hypothetically examined the performace of a Holtec cask under those real-world fire conditions. The conclusion was the cask would have failed, and release some of its deadly cargo onto the winds.

The study (posted online at <<http://www.state.nv.us/nucwaste/news2001/nn11459.pdf>>) calculated that up to

56 people would have suffered exposures sufficient to cause latent cancer fatalities, from their acute, immediate exposure to the radioactivity in the smoke escaping from the fire. If residents continued living in areas contaminated with fallout for a year's time, nearly 1,600 would die from latent cancers. If residents continued living in contaminated areas for 50 years, nearly 32,000 would die from latent cancers. The clean up costs would have topped \$13.7 billion in year 2001 dollars.

If home games were taking place at one or more of the immediately adjacent pro sports stadiums, the health impacts would have been even worse.

Given such potentially catastrophic consequences, NRC must significantly strengthen its fire safety regulations for irradiated nuclear fuel transportation.