

**Panel:** Nuclear Spent Fuel and Waste Management (Grand Ballroom I )

**Date/Time:** Tuesday, February 19, 2013 / 14:00-15:15

**Talking Points for:** Jacob Dalnoki Veress, Scientist-in-Residence, James Martin Center for Nonproliferation Studies (CNS)

The Republic of Korea (ROK) is currently the world's fifth-largest nuclear energy producer, and is in the process of becoming a major nuclear power plant exporter. Although, the ROK has benefitted economically and developmentally from its active nuclear power sector, this reliance on nuclear energy over the last three decades has brought about one very negative consequence: an accumulation of spent nuclear fuel. The ROK is not alone in this. Many countries including the United States face the same challenges. In conjunction with Swiss consulting firm MCM, we have completed a study investigating a range of spent fuel management options for the ROK and identified 12 practicable recommendations which will be discussed in my presentation.

In the near term, we suggest that (1) communities be informed about the benefits of dry cask storage vs. wet storage; (2) the transfer of fuel from older to newer pools and the creation of a centralized interim storage facility be explored; and (3) initiate a comprehensive 10 year "back-end" study with the United States on new approaches for fuel disposition. In the long term, we recommend for a credible strategy to be established leading to a national repository in several decades. However, the ROK should also investigate and collaborate with other countries on alternative options such as deep borehole disposal. Although, the current preferred strategy is pyroprocessing and fast reactors, a final disposal solution in a geological repository will still be needed. We also emphasize that extended storage is not a viable ultimate disposal solution.

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\* The views expressed herein do not necessarily reflect the views of the Asan Institute for Policy Studies.