

How Safe Are Nuclear Power Plants in South Korea?

Session: Grand Ballroom 3

Date/Time: February 20, 2013 / 14:00-15:15

Moderator: Ahn Joonhong, University of California, Berkeley

Speakers: Kim Jiyeon, The Asan Institute for Policy Studies
Lee Jong-In, Korea Institute of Nuclear Safety
Suh Kune Yull, Seoul National University

Rapporteur: Paolo Venneri, Korea Advanced Institute for Advanced Science and Technology

Session Sketch

The session began with the moderator, Ahn Joonhong, professor and vice chair of the Department of Nuclear Engineering at the University of California Berkley, setting the stage by presenting a series of questions and considerations that were then later addressed by the panel members. The issues he presented largely concentrated on the safety issues surrounding the design of nuclear reactors, how they are operated, the regulatory concerns surrounding the nuclear industry, the evolution of threats to nuclear installations, and the effectiveness of any emergency response plan.

Both Lee Jong-in, senior advisor at the Korea Institute of Nuclear Safety, and Suh Kune Yull, professor in the Nuclear Engineering Department of Seoul National University, directly addressed these points from their respective backgrounds. Dr. Lee gave an overview of the regulatory system in Korea and how it had evolved to best handle and address the regulation of the Korean nuclear industry. He paid particular attention to the efforts made in response to the various nuclear accidents throughout the world. He cited internal and external review efforts following the Fukushima accident, and the direct implementation of solutions to issues found during those reviews.

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Dr. Suh proceeded to provide a list of important issues in the safety and security of the nuclear industry. Among the issues he mentioned, the shortage of qualified manpower in the nuclear industry, the joining of the nuclear regulatory body with the super-ministry involving nuclear research, and the potential threat from Chinese nuclear power plants figured prominently in his discussion.

Kim Jiyeon, research fellow and director of the Public Opinions Studies Center at the Asan Institute for Policy Studies, took a very different perspective that provided a backdrop to the entire dialogue. She presented the results of a series of polls she had conducted for the Asan Institute regarding public perception of nuclear power, both as an energy source as well as its safety. Her findings, as she presented them, showed that on average, while the Korean people trusted the nuclear technology itself, they had concerns relating to its safety. This did not, however, prevent them from thinking that nuclear power plants are not important to have in South Korea.

This brought the discussion to the question of what could the Korean government do to increase the public's confidence in the Korean nuclear industry. Dr. Suh responded that the first step would be to prevent the merging of the regulatory and promoting bodies, and that the regulator "had to be a watchdog, not a lapdog." Dr. Lee responded that it was not fair to make such a comparison. While cooperation between regulators and the regulated is necessary to create the regulation, the regulation process itself was done solely by the regulator. Dr. Kim made a different proposal. She suggested that the issue was not how safe or effective the regulatory systems were (Dr. Suh later gave a grade of 98 out 100 to Korean nuclear industry safety), but rather how much the Korean people trusted their government. She argued that it was because of the lack of public dialogue and transparency on the part of the government that Koreans had come to hold such contradictory opinions on nuclear power, and continued to have worries regarding its safety.

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