

Building Public Confidence in Nuclear Safety

Session: Grand Ballroom 1

Date/Time: February 19, 2013 / 12:30-13:45

Moderator: Dae Chung, US Department of Energy

Speakers: Ahn Joonhong, University of California, Berkeley

Kim Myungja, Korea Federation of Women's Science and Technology

Association

Lee Un Chul, Seoul National University

Suzuki Tatsujiro, Japan Atomic Energy Commission

Rapporteur: Robert Kim, Center for Strategic and International Studies

Session Sketch

This panel explored the necessary role of public trust in the future of the nuclear industry. Mr. Dae Chung started the panel discussion by emphasizing the role of safety culture in preparing for and precluding accidents that arise from natural events. Ensuring a rigorous safety culture is one of the necessary conditions for securing public confidence. Another condition is clearly communicating in plain language the issues regarding nuclear power and technology to the public. Finally, the realities of social media and new venues for communication must be taken into account. One must also acknowledge that public perceptions of government capabilities do not always match reality.

Dr. Joonhong Ahn continued this discussion by highlighting an emerging framework for safety analysis, called "resilience engineering." While traditional forms of accident analysis often point to erratic and flawed human behaviors and show humans to be unreliable in times of accident, "resilience engineering" emphasizes that human behavior is not static and can adapt to circumstance. For complex systems such as nuclear power, high resilience is needed. This resilience must be founded in anticipation rather than in hindsight of accidents. Furthermore, it must be based on a broad range of variables, some of which may not be easily modeled. He would later liken this framework to martial arts; one must be prepared, but not

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be so overly prepared that one is "stiff" and inflexible in times of dynamic instability.

Ms. Myung Ja Kim discussed many of the political and social barriers to effective communication. A small number of vocal groups tend to dominate the debate, while the majority remains passive. High profile and sensationalized incidents tend to cloud perceptions and make the public ignore evidence that contradict their beliefs. Public communication needs to be free from external bias and occur in a way that the public can understand. She emphasized that there is no alternative to nuclear power in South Korea.

Dr. Un Chul Lee brought up a broad range of questions that need to be considered by the public. Some of these included whether there are alternatives to nuclear power, the implementation of safety measures, and the long-term overall energy mix. One outstanding issue was the topic of spent fuel and the necessity of public involvement in the process of dealing with nuclear waste, especially in siting temporary and permanent disposal sites. He also stated that while the public wants both quick and accurate communication, achieving both at the same time is difficult.

Finally, Dr. Tatsujiro Suzuki recollected on several personal experiences while working at the Japan Atomic Energy Commission. He stressed that transparency is a continual objective at the JAEC, and spoke about closed meetings that later turned out to be scandals because they were not known to the public. He also stated that *how* communication takes place is just as important as whether it takes place. One fruitful avenue is face-to-face governmental interaction with the public. Also, government regulators should not hesitate to become the "audience" and directly hear the concerns of citizens. Finally, public trust should be considered both international and domestic.

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