Session 1: Safety of Nuclear Facilities on the Korean Peninsula

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Summary

There were five panelists who are Soon Heung Chang, Won Pil Baek, Fujiie Yoichi, Ki-sig Kang, Jong In Lee. Each of penal addresses different specific topics, but there are concerned with safety against natural disaster like Fukushima and human done. Let us move to each speech.

The first speaker is Won Pil Baek who are working in Korea Atomic Energy Research Institute as a vice president. He has mainly studied on thermal hydraulic field. His presentation focuses on how to enhance safety of nuclear facilities. The goal of safety is protection of society, environment, and facility. The minimum requirement and designable safety level are important in view of safety. We are able to increase public acceptance through the two features. Moreover, the possible R&D is introduced in terms of design basis and long term operation technology. Finally, he concludes that the safety should be based on knowledge.

The second speaker is Fujiie Yoichi who has studied on safety of nuclear system in Japan. He roughly compares among representative nuclear accidents in the world wide, such as Chernobyl, Three Mile Island and Fukushima accident. And he zooms in Fukushima disaster. Briefly speaking, the Fukushima accident is happened by earthquake and Snami. Fukushima nuclear power plants are able to endure less than 8.0 earthquake level and 6m high wave. However, it is 9.0 earthquake and 15m high wave approach to the sites. The system is successfully shut down, but the long term decay heat removal system is not operated due to attacked disel power supply system. In addition, the some units show

hydrogen explosion. After the accident the Japan worry about used water and effects on children. To prevent this disaster again, we need better technology and international community to solve a lot of problems.

The third speaker is Ki-sik Kang who are working in International Atomic Energy Agency. He mentions on the safety of nuclear power plant compared with international nuclear power plant. Korea has been changed very rapidly and keeps going the changing. He categorizes five issues in nuclear field as design basis, defense depth, several accident, management, and regulatory. The most important word is humanism which is able to be separated on-site and off-site managing. He strongly claims that on-site is working reasonably, but off-site shows big problems, especially, under accident condition like Fukushima accident. We have to rebuild off-site tower for several condition.

The last presenter is In Jong Lee. He is the vice president of Korea Institute of Nuclear Safety. He concerns with safety strategies after Fukushima accident in Korea. KINS worked 24hours after accident and always operated monitoring system. The government requires the re-checking of nuclear power plant in Korea, and expanded monitoring system, enhancement of credibility, and improved international community.

The conclusion of session is improvement of safety system and community to prevent several accidents and increase public understanding by research and cooperation among the world.