Summary of Symposium on “Best Practices in Nuclear Regulation”

- Overview
  - Efficient and reasonable decision-making by regulatory agencies is necessary.
  - Sharing common safety culture of communication is important.
  - It is necessary to ensure transparency that reflects matters required by both regulatory agencies and utilities, etc.

- Opening Speech by Mr. Terazawa, Chairman & CEO
  - Only 10 nuclear power plants (NPPs) have been restarted even after 12 years from the Fukushima-Daiichi nuclear power station accident. We need to accelerate safety reviews by adopting overseas best practices. Also, it is essential to enhance capacity factor towards the realization of carbon neutrality. It is important to enhance communication between the Nuclear Regulation Authority (NRA) and utilities, etc. In parallel, we are seeking to learn from overseas practices about what role NRA should play for obtaining understanding from municipalities with NPPs so that such knowledge can take root in Japan.

- Presentation by Mr. Magwood, the OECD Nuclear Energy Agency (NEA)
  - At the time of inauguration, NRA’s original priority was to restore public trust in nuclear regulation; however, the situation has changed over the past 12 years since the Fukushima-Daiichi nuclear power station accident occurred. The time has come to review how nuclear regulation should be.
  - It is necessary to set clear safety goals and ensure transparency in communication. In addition, NRA is required to be evaluated itself.
  - Moreover, it is also important for NRA to adopt innovations. NRA must focus on reasonable and practical safety improvements.
  - Good regulation will be generated by the coordinated communication between regulatory agencies of each country.

- Presentation by Mr. Jammal, Executive Vice-President and Chief Regulatory Operations Officer of the Canadian Nuclear Safety Commission (CNSC)
  - In Canada, we have made efforts to shorten the process of safety reviews of advanced reactors such as small modular reactors (SMRs) by accelerating their reviews in advance.
  - Also, we place great importance on not adopting unreasonable risk countermeasures. For this purpose, regulatory agencies need to have the capability of risk analysis.
  - For the promotion of innovation, international cooperation is important, while cooperation of municipalities around NPPs is essential. For instance, in indigenous peoples’ areas, we have made efforts to encourage residents to participate in regulator’s activities. Regulatory agencies are independent

organizations, but they can never be able to work without cooperation with stakeholders.

- Presentation by Mr. Campbell, the former Consultant of the UK's Office for Nuclear Regulation (ONR)
  - In the UK, priority is given to ensuring the transparency during the review, which is not legally prescribed but is included as part of the regulatory service.
  - Also, we have introduced risk reduction measures where safety goals are set. Moreover, ONR publishes expectations to keep transparency. Also, in the general design review for new reactors, we have compiled and published expectations for new reactors.
  - ONR has also introduced a system of review and self-assessment of its own regulatory activities.

- Questions and Answers

Q1: How should we keep the balance between regulatory process and enhancement of capacity factor?

A1: Utilities are responsible for capacity factors, however, regulators are required to know how reactors are in their countries.

Q2: We have seen increasingly frequent natural disasters, etc., in the world. How does each country incorporate such factors into regulation? What do we need to implement reasonable regulation?

A2: Countries have addressed such issues through analysis and assessment rather than by changing their regulatory requirements. There are differences in character between natural disasters faced by each country; each country has analyzed and assessed climate-change-associated impacts with respect to such country-specific disasters.

Q3: From the viewpoint of securing supply of electricity, shouldn't we also take account of rationality?

A3: Regulatory agencies should not be responsible for securing supply of electricity.

Q4: Where should we set risk targets, specifically? Also, what efforts have you made to implement efficient and effective regulation and avoid delay?

A4: Utilities are required to set and achieve quantitative and qualitative safety goals. In addition, it is important to clarify what is required in regulation in order to avoid delay.

Q5: Do you have any idea about why Japan is slow in introducing safety goal?

A5: I think there might be problems in regulatory frameworks, knowledge/skills or management systems. Regulatory agencies themselves should review such problems, also using the IAEA peer review service.

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