

Summary of 18th Chief Nuclear Officer Conference

1. Date: May 22, 2024 (Wed.) 13:00 ~ 15:00
2. Place: Otemachi Headquarters, Central Research Institute of Electric Power Industry (CRIEPI)
3. Participants:
 - Chair: Apostolakis (NRRC)
 - Members: Makino (Hokkaido EPCO; substitute for Katsuumi),
Aoki (Tohoku EPCO ; substitute for Kanazawa),
Yamashita (TEPCO HD; substitute for Fukuda),
Ihara (Chubu EPCO), Fukumura (Hokuriku EPCO),
Mizuta (Kansai EPCO), Hasegawa (Chugoku EPCO),
Kawanishi (Shikoku EPCO), Toyoshima (Kyushu EPCO),
Kenda (JAPC), Ota (JNFL; substitute for Matsuda),
Hagiwara (J-Power), Asaoka (NRRC)
 - Observers: Nakaguma (FEPC), Ono (JANSI), Uozumi (ATENA),
Meserve (NRRC)
 - Organizer: Furuta (NRRC)
 - NRRC Management: Yoshida, Yoneda, Sakuramoto, Nishimura, Matsuyama

4. Proceedings:

(1) R&D Research Results for FY2023

NRRC presented the overview of R&D research results for FY2023.

(2) Activities of NRRC

NRRC reported on “Development of Elemental Technologies for Probabilistic Risk Assessment (PRA) for Earthquake/Tsunami Superimposed Projects” and “Development of Ashfall Layer Thickness Hazard Assessment Technology Based on Ashfall History and Web Browser Version Assessment Tool”.

(3) Discussions with the NRRC director

(Main comments from committee members)

- (In response to the director's comment that he is surprised that there has been no discussion of appropriate nuclear regulation in the Diet) It is not that there has been no discussion of regulation by Diet members. There is a place for Diet members to voice their opinions on regulations. However, we are not yet at the stage of talking about risk, since the Diet members are talking about the screening process for long-term operation, while many plants have not been restarted at this time. In addition, the ruling party has issued a proposal for improvement to make regulations more rational, and there is a movement for the

Nuclear Regulation Authority to change itself based on this proposal. I do not think that the Japanese Diet members are doing nothing and accepting the current approach of the Regulatory Commission and the Regulatory Authority. We have been approaching them through the Federation of Electric Power Companies of Japan and ATENA and have been working to have the regulations changed.

- (In response to the Director's comment that “Japanese operators are afraid that new regulations will be imposed if the CDF exceeds 10^{-6} /reactor year,” Japanese operators are trying to incorporate internal fire and internal overflow PRAs in addition to the internal event and earthquake PRAs that they are currently implementing and are not hesitating to exceed 10^{-6} /reactor year CDF. They are not hesitating to exceed the CDF of 10^{-6} /reactor year.
- We will set internal performance targets and actually promote the use of risk information in a variety of ways. Naturally, we cannot yet use risk information in areas bound by regulations, so we will start using risk information in areas that are not bound by regulations. We are also considering having our efforts evaluated by organizations in the U.S. and other countries that are actually using risk information to see if our efforts have become a global standard.

(Remarks of the NRRC director)

- So far, the Nuclear Regulatory Commission has said that it will not accept the use of broader risk information. Operators are frightened that new regulations will be imposed if the CDF exceeds 10^{-6} /reactor year because the Regulatory Commission has said that the CDF of 10^{-6} /reactor year for the Japanese PRA is too low. As a matter of urgency, a reasonable performance indicator for the PRA should be established.
- On the other hand, we believe that we have found a ray of hope in the fact that the NRA commissioners accepted the industry's proposal to “begin discussions to deepen mutual understanding between industry and the NRA” during the March 25, 2024 exchange of views meeting between the regulatory commissioners and the CNO. How exactly to proceed is being decided among the parties concerned, and I have high expectations.
- There is a concept of “Adequate Protection” in the United States, which is defined by law as “NRC is required to ensure the health and safety of the public as well as the protection and security of the commonwealth. It is a fundamental requirement to ensure that the operation of a nuclear plant does not expose the health and safety of the general public to unreasonable levels of risk. In addition, the NRC has said that cost should be considered for safety improvement measures that go beyond adequate protection. The NRC has a process in place to rigorously review and decide whether a given case is adequately protected.