

Summary of 11th Technical Conference

1. Date : July 14, 2016 (Thur.) 15:00 ~ 18:00
2. Place: Central Research Institute of Electric Power Industry

3. Participants:

Chair: Yokoo (NRRC)

Members: Kawada (Hokkaido EPCO, substitute for Maki), Obonai (Tohoku EPCO, substitute for Kato), Igarashi, Kawamura (Tokyo EPCO), Masuda, Nakagawa, Nagura (Chubu EPCO), Takahashi (Hokuriku EPCO), Oishi, Yoshihara, Urata (Kansai EPCO, substitute for Suzuki), Iwasaki (Chugoku EPCO), Nishimura (Shikoku EPCO, substitute for Kawanishi), Okano (Kyushu EPCO), Ishizaka (JAPC), Okamura (JNFL), Kuramoto (J-Power), Noda (Toshiba), Konno (Hitachi GE), Yoshizu (MHI, substitute for Kono), Kurata (JANSI), Takahashi, Shimeno, Zama, Sakai, Yamamoto (NRRC)

4. Proceedings:

- (1) The direction of R&D plan for FY2017

NRRC made an interim presentation on the development of the research plan for FY2017, and outlined the following R&D topics.

<Risk assessment; internal events >

1. Multi-Unit PRA
2. Developing methods for data analysis and reliability analysis for PRA
3. Fire PRA and enhancement of fire protection
4. Flooding PRA
5. Development of human reliability analysis techniques
6. Progression of severe accidents (SA)
7. Integrity of containment vessel during SA
8. Fission product (FP) - behavior during SA
9. Development of recriticality evaluation technology
10. Development of level 3 PRA methodology
11. Risk communication

<External natural events>

1. Fault activity

2. Seismic motion
3. Volcano
4. Tornado and other extreme weather conditions
5. Tsunami
6. Seismic resistance of devices
7. Seismic resistance of buildings
8. Seismic resistance of grounds/structures

(Remarks of the industry members)

- As for guidelines which NRRC is going to produce after developing various methodologies, we would like NRRC to provide such guidelines to help utilities incorporate new methodologies appropriately and effectively. The extent of refinement and the scope of PRA models will vary, depending on target areas of PRA applications. We would like NRRC to develop guidelines in the context of actual applications.
- We, the utilities, have to take into consideration specific characteristics of each plant when we undertake PRA with the help of guidelines provided by NRRC. Since the guidelines will be produced based on discussions in the pilot plant programs, we would like to share not only the guidelines themselves but also the process of discussions and related data.
- The evaluation of cesium aerosol migration is one of the most important elements when we quantify FP release from damaged containment vessel. We expect technical support in this area from NRRC.
- With regard to the response analysis of buildings, we have to find an optimum number of nodes which demonstrates the response of piping system adequately

(2) Operating Status of NRRC

The RIDM promotion team, newly established in NRRC in July, presented its near term tasks.

(Remark of an industry member)

- We expect NRRC to investigate both successful and unsuccessful cases of risk-informed decision making (RIDM) overseas and analyze differentiating factors. We would like to learn from previous experience

abroad toward effective application of RIDM in Japan.