

Summary of the 8th Technical Advisory Committee (TAC) Meeting

Date:	Nov. 6 – 10, 2017
Place:	Nuclear Risk Research Center (NRRC), Central Research Institute of Electric Power Industry
Participants:	
TAC:	Mr. Stetkar (Chair), Mr. Afzali, Dr. Chokshi, Mr. Miraucourt, Prof. Takada, Prof. Yamaguchi
NRRC:	Dr. Apostolakis (Head), Experts of the Nuclear Risk Research Center
Industry:	Experts of TEPCO Holdings, TEPCO SYSTEMS, Shikoku EPCO for respective topics

Proceedings

All the topics were discussed in full committee. In addition, a discussion session took place following Mr. Miraucourt's lecture on the current practice of risk management in France.

Nov. 6 (Mon.)

Topic 1: Risk-Informed Decision Making (RIDM) Promotion Team Activities and Pilot Projects

- NRRC presented the current status of the activities of the RIDM Promotion Team and the draft proposal of "Strategic Plan for Implementation of Risk-Informed Decision Making Process".
- TEPCO Holdings and TEPCO SYSTEMS presented the current status of the Kashiwazaki-Kariwa (KK) 6/7 pilot project. Shikoku EPCO presented the current status of the Ikata 3 pilot project.
- TAC members commented as follows:
 - The information about the expert review reports and the responses to them by the pilot projects will enable the TAC members to understand the quality of the risk assessment and the level of the review. On that basis, we can make comments and write a letter from the technical point of view.
 - Enhancement of a PRA model and data will cause some changes in the risk profile. Then it is important that the utilities explain the reason why the risk profile has changed.

(Handouts)

1-1. RIDM Promotion Team Activity Roadmap

1-2. Strategic Plan for Implementation of Risk-Informed Decision Making Process

1-3. #8 TAC materials 「Ikata Unit3 Project Status Update」

1-4. KK-7 Project Internal Event Operating Level 1 PRA Model Sophistication Progress Report

Nov. 7 (Tue.)

Topic 2: Risk Assessment Research

- NRRC presented the general overview of NRRC's Research Plan for FY 2018.
- NRRC presented the R&D roadmap of Risk Assessment Research for FY 2018. NRRC also presented the current R&D status of "Fire PRA Guide" and "Multi-unit PRA".
- TAC members commented as follows:
 - It is not apparent why so much time is needed to develop guidance for common cause failure (CCF) parameter estimation and use in PRA models. Substantial guidance is available and has been used in the U.S. and other countries.
 - It is appropriate that you consider the implementation of Level 3 PRA at a pilot plant. We recommend that the evaluation viewpoint should not be limited to fatality but be broadened in different perspectives.
 - You should refer to the report of the SOARCA project of US-NRC, including the project at Sequoyah nuclear plant, as the state-of-the-art for integrating Level 2 and Level 3 PRA models, including uncertainties.
 - The overall task flow of the Fire PRA guide should clarify the interdependency and iteration processes among tasks.
 - The HRA guidance in the Fire PRA guide should be consistent with the NRRC HRA methodology and guidance.
 - Multi-Unit PRA should cover Level 2 PRA because the effect of fission product release from one unit to the other units should be considered in the assessment. However, implementing Level 1 dual-unit PRA is a good starting point.
 - Various combinations of possible seismic-induced initiating events

between multiple units should be considered.

(Handouts)

- 2-1. NRRC's Research Plan for FY2018
- 2-2. R&D plan for FY 2018 -Risk Assessment Research-
- 2-3. Development of the Fire PRA Guide
- 2-4. Fire PRA Guide Chapter 1, 2, Appendix
- 2-5. Study on MUPRA

Nov. 8 (Wed.)

Topic 3: External Natural Event Research

- NRRC presented the R&D roadmap of External Natural Event Research for FY 2018. NRRC also presented the current R&D status of "Tsunami PRA" and "Status of Ikata SSHAC".
- TAC members commented as follows:
 - You should plan research on natural external events while having in mind its role in the PRA. Research priorities should integrate an understanding of hazard frequency and severity, building and equipment fragilities, and plant systems analysis.
 - The technical integration team should play a more leading role in developing a process of evaluation models in both seismic source characterization and ground motion characterization of the Ikata SSHAC project.

(Handouts)

- 3-1. R&D plan for FY 2018 -External Natural Event Research-
- 3-2. PTHA (Probabilistic Tsunami Hazard Assessment) and TFA (Tsunami Fragility Assessment) in Tsunami PRA
- 3-3. Technical Issues to be studied in Ikata SSHAC Level 3 Project

Nov. 9 (Thu.)

Topic 4: Discussion on French experience in risk management

- A discussion session took place following Mr. Miraucourt's lecture on "Current Practice of risk management in France".

(Handouts)

- 4-1. Current Practice of risk management in France (Mr. Miraucourt)

Topic 5: Exit Meeting

TAC and NRRC had a discussion on how to organize future meetings. They also discussed the “Strategic Plan for Implementation of Risk-Informed Decision Making Process”.

Nov. 10 (Fri.)

Committee internal meeting.