

## **SUMMARY OF THE PROCEEDINGS OF THE 10<sup>th</sup> NUCLEAR REFORM MONITORING COMMITTEE MEETING, NOVEMBER 20, 2015**

**Venue:** TEPCO Headquarters 10F West Side Conference Room

**Participants:**

- Dr. Dale Klein (Chairman)
- Lady Barbara Judge (Deputy Chairman)
- Masafumi Sakurai (Member of the Committee)
- Fumio Sudo (TEPCO Chairman, Member of the Committee)
- Naomi Hirose (TEPCO President and CEO, and Chief of the Nuclear Reform Special Task Force)
- Takafumi Anegawa (Managing Executive Officer, Secretary-General of the Nuclear Reform Special Task Force)
- Naohiro Masuda (Chief Decommissioning Officer, President of Fukushima Daiichi D&D Engineering Company (FDEC), Managing Executive Officer)
- Dr. John Crofts (Managing Executive Officer, Head of Nuclear Safety Oversight Office)
- Ms. Chisa Enomoto (Corporate Officer, Head of Social Communication (SC) Office)
- Kazuhiro Suzuki (Secretary General)

### **Chairman's Opening Remarks**

Dr. Klein opened the meeting, noting that the Committee had chosen to hold site visit at Kashiwazaki-Kariwa NPS (KK) for two reasons: to inspect the physical improvements, and to review the training and responsiveness of the staff there. He noted that he had never seen an emergency drill as large as the one the Committee saw at KK. He also noted that the Committee explored the cable issues that had recently occurred there. He pointed out the fact that TEPCO staff discovered those cable issues and were confident that they could fix them, and that demonstrates that the safety culture is growing throughout the organization.

Overall, he said, it's clear Fukushima Daiichi NPS (1F) is moving beyond stabilization into active cleanup. He also said it's very important that the company continues communications with the public and stakeholders, and earns people's trust by good and steady performance.

He noted that safety is a journey which never finishes but the company were making good progress. He asked them to move as rapidly for safety culture as they can, focus on safety, not cost and schedule, and not to become complacent.

## **Opening Comments from Committee Members**

Lady Judge noted that during the Committee's visit, she could see that the safety culture has been ingrained throughout the organizations and how the lessons learned from Fukushima accident were being applied at KK through dialogue with the people at the plant.

She noted the importance of "soft skills," that people need to be as good as the strengthening of the physical plant. She also noted the role the Nuclear Safety Oversight Office played in bringing best practices to both KK and 1F and its suggestions were being taken to heart.

Mr. Sakurai praised KK's development of facilities and mechanisms to prevent human error. He said that it was wonderful to have the opportunity to see how hard people in the field work and to talk with them directly. He noted that disaster prevention training has improved considerably and asked the company to share them with the committee, long term training plans and annual plans created based on those plans.

With respect to the cable issues, he urged for an investigation of the root causes and that measures be taken to prevent a recurrence of the installation errors.

Mr. Sudo said it was beneficial that members of the Committee had the opportunity to engage in dialogue and discussion at KK, and noted that workers were still eager to improve safety.

He said he'd like to hear more about what they thought, engaging in constructive discussions that would further improve safety at this meeting.

## **Comments from the Chief of the TEPCO Nuclear Reform Special Task Force**

President Hirose (in his capacity as chief of the task force) expressed his appreciation for the Committee's trip to KK. He noted emergency drills are conducted every month and joint drill with headquarters is held approximately once each quarter. He said that the continuous efforts show improvement there, as well as at 1F. He also noted that March 2016 will mark the three-year anniversary of the adoption of the Nuclear Safety Reform Plan, and that this milestone will be marked by a comprehensive self-assessment about which the Committee's views will be sought.

## **Discussion on Progress on the Nuclear Safety Reform Plan**

In response to a question from Dr. Klein about whether the company is monitoring public response to the increased data disclosures following the K Drainage issue earlier in 2015, Ms. Enomoto noted efforts to show data trends and gave explanations in a more easy-to-understand manner, for example, compiled reports given at regular briefings by Mr. Masuda, CDO after 70,000

instances of data disclosures. The company has not been monitoring public access to their website but will begin doing so immediately.

Dr. Klein said that it would be interesting to know if anyone cares. Also, Mr. Sudo asked Ms. Enomoto to consider whether local residents should be consulted regarding the necessity of the disclosure. Lady Judge mentioned the importance of communication with women group and commended the efforts at outreach to that community. Lady Judge also suggested the most important thing is to put the data in context so that people can understand it. Mr. Masuda said he understood and would discuss this at length with the local community.

Mr. Masuda addressed the matter of countermeasures for contaminated water at 1F, noting that implementation of the subdrains and seaside impermeable wall had reduced the amount of contaminated water considerably, and the completion of seaside impermeable wall has reduced the amount of discharges into the sea. He said that the goal is to continue to reduce the amount of contaminated water. With respect to decommissioning activity, he noted that spent fuel removal was completed at Unit 4 and that TEPCO is examining methods for identifying the position of fuel debris and also removing spent fuel from Units 1-3. He also noted improvements to the work environment, wages, and morale.

In response to a question from Dr. Klein regarding inflow of groundwater into the reactor buildings, Mr. Masuda said, with all countermeasures, the long-term roadmap calls for reduction in the amount of groundwater flow to less than 100 tons per day.

Mr. Yokomura, Corporate Officer, Site Superintendent of KK, noted that approximately 4,500 people are engaged in countermeasure work at KK. He said he would like to see further improvements in risk identification through management observation so as to prevent serious accidents and fires. He also said he would like to have disaster prevention training implemented in a planned manner on systemized topics. He noted this should be engaged in proactively because it's important for everyone to identify areas for improvement through these activities and continue to increase the level of safety.

With respect to the cabling issues, he said root causes will be analyzed and recurrence prevention measures thoroughly implemented. He also said they need to be an organization that can make sure work is done correctly while enhancing monitoring functions, because they should be able to implement self-improvements.

Lady Judge commented a benefit for the company out of the decommissioning activities by developing techniques and owning the intellectual property or ability.

## **Discussion on Self-Assessment for Nuclear Safety Reform**

The Committee had a general discussion about the upcoming self-evaluation process associated with the third anniversary of the Nuclear Safety Reform Plan. President Hirose said it is important to identify weaknesses and further strive to make improvements and the company should fundamentally conduct the self-assessment based on the Nuclear Safety Reform Plan and move forward in earnest. He asked the Committee to share its views. Dr. Klein urged the company to take the lead, and said the Committee will review and comment on it.

## **Comments from Committee Members**

Dr. Klein observed that the trip to KK had been worthwhile, and that the Committee had learned from its observations of both the physical improvements and the people there that the visit itself was important.

Lady Judge noted this was a good time to see the improvements that have been made, and she expressed appreciation for the staff's candor. She noted that improvements in safety culture were evident from when the Committee started, and said workers should be proud of the progress they have made.

Mr. Sakurai noted the importance of analyzing potential accidents to protect worker safety. He said he would like TEPCO to see worker protection perspectives be incorporated into disaster prevention training.

Mr. Sudo thanked the Committee for visiting KK and praised Mr. Yokomura and his staff for their cooperation. He noted that in his visits to nuclear facilities in France the previous October, he found three things to be important:

- Ascertain and incorporate the latest trends in technology
- Develop personnel who can assimilate these technologies while demonstrating leadership
- Enhance communication through international exchanges both to ascertain global trends and to disseminate the knowledge and lessons that the company have learned from the Fukushima accident.

Dr. Klein said he wanted to amplify Mr. Sudo's remarks regarding communication and the sharing of information, noting the involvement of several TEPCO individuals at international meetings. He said it's very important that TEPCO is reaching out and communicating both to learn best practices from overseas experiences and also to let the world know what is happening at 1F. He urged the company to stay visible and active in the international market.

## **Comment from the Chief of the Nuclear Reform Special Task Force**

President Hirose thanked the Committee, and emphasized that despite the various positive remarks by members of the Committee, it is important that the company should not become complacent. In particular, he said, the self-assessment must be done thoroughly so that the company can begin a new chapter as it enters the fourth year of the Nuclear Safety Reform Plan.