

Second Meeting of the Investigation Committee on the Accident at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company

Summary of Proceedings

1. **Date:** 15:30 to 17:30, July 8, 2011 (Fri.)

2. **Attendees:**

Committee Chairperson: Dr.Hatamura

Committee members: Dr.Oike, Ms.Kakinuma, Mr.Takasu, Mr.Takano,
Mr.Tanaka, Mr.Furukawa, Mr.Yanagida, and
Mr.Yoshioka

Technical advisors: Mr.Abe and Dr.Fuchigami

Others: Mr.Komori, Managing Director of TEPCO and others

3. **Main Comments from Committee Members Etc.**

• Investigation and Verification Items (Attachment 1)

[Mr.Oike, Committee member]

- It is essential to select interviewee according to each investigation item.
- Committee member Mr. Yanagida introduced the 6M prior to the Committee meeting from the viewpoint of accident investigation in the United States. In addition, we must attach importance to memory data which includes historical records on tsunamis and earthquakes and information on the memories of individuals surveyed.
- The Central Disaster Prevention Council is considering countermeasures with civilians and local governments kept in mind. Nuclear disaster management, however, is quite alien to the general theory of disaster management. Therefore, countermeasures should be taken with consideration of the worst case. It is necessary to investigate what discussions have been made at organizations, such as the Japan Meteorological Agency, Central Disaster Prevention Council, and the Headquarters for Earthquake Research Promotion while distinguishing nuclear disaster management and the general theory of disaster management.

[Mr.Furukawa, Committee member]

- Exposure to residents, especially children, infants, and pregnant women, should be precisely investigated. Moreover, the influence not only on the soil but also on the natural environment including the forests should be investigated as well.

[Mr.Yoshioka, Committee member]

- The number of investigation and verification items of the Social System Investigation Team can be increased to include more items, such as earthquake assessment and plate tectonics.
- It is essential to specify “actors” including scholars as well as Tokyo Electric Power Company (TEPCO) and safety regulatory agencies.

[Dr.Fuchigami, technical adviser]

- The investigation items of the Social System Investigation Team will increase endlessly if we start expanding the investigation range. Therefore, the investigation range should be limited to a certain extent. For example, the cost of power generation and security measures against aircraft crashes can be made subject to investigation.

[Mr.Takasu, Committee member]

- It is necessary for the Social System Investigation Team to investigate the government and TEPCO’s management decisions in the past. In my impression, importance is attached to economic efficiency rather than experts’ opinions in Japan. Therefore the cost factor should be considered as well.
- It is necessary for the Accident Causes Investigation Team to include investigations of the background of the insufficient multiple protection and clarify whether countermeasures were studied with the worst case taken into consideration. Furthermore, the Team must check whether the international safety standards and principles had been observed before the accident.

[Mr.Takano, Committee member]

- There was a report on a tsunami attack to the Kalpakkam Nuclear Power Station in India soon after the Sumatra Earthquake in 2004. How did other countries take necessary measures based on this report?
- It is necessary to investigate the relationship between TEPCO’s nuclear, thermal, and hydraulics power generation divisions as well as its decision-making system and governance, concealment of past incidents, and arrangements after the Chuetsu Earthquake.

[Dr.Hatamura, Committee Chairperson]

- Investigation items may be added or changed depending on the progress of work from now on. For the time being, we will continue investigation

with consideration of the comments given today.

- Under the current condition, do you have any objection to the draft of investigation items specified in Attachment 1? (No Committee member raised any objections.)
- If there will be any additional comments from each Committee member, I will give necessary instructions to the Committee Secretariat with consideration of the importance of each comment. As for the additional comments, please contact the Committee Secretariat or me.

- Handling of Information and Informative Materials (Attachment 2)

[Dr.Hatamura, Committee Chairperson]

- Information and informative materials submitted from parties concerned will not be disclosed if the Committee determines that the information and informative materials should be handled confidentially.

→ Arranged as in Attachment 2.

- Interviews and Relevant Methods (Appendix 3)

[Mr.Ogawa, Secretary General]

- Presently, we are expecting to hold meetings to interview 200 to 300 people.

[Mr.Abe, Technical advisor]

- The subject is an ongoing incident with a small quantity of written information. Therefore, interviews are very important. The methodology of interview seems to be appropriate, but the identification of the interviewee is important. It is necessary to make clarification at the next Committee meeting about who should be invited to the interview and what questions we should ask.

→ (Secretary General) The Committee Secretariat will select the interviewee and inform the Committee members in advance.

[Mr.Tanaka, Committee member]

- Detailed verbatim report should be made for the part of the interview, which is directly related to the investigation themes.
- I understand from the discourse of Committee member Mr. Yanagida that five Commission members and 80 staff members investigated the explosion accident of the U.S. Space Shuttle. I would like to know the relationship between the Committee members and Secretariat staff at the investigation.

→ (Mr. Yanagida, Committee member) At the Special Presidential Commission of Inquiry, the Commission members evaluated the results of investigation made by the staff, and the Commission members were not directly involved in the investigation. Interviews of key figures were all open to the public and recorded.

[Mr. Takano, Committee member]

- It is not practical to prepare verbatim report for all interviews. Depending on the contents of the investigation, it is necessary to make summarized reports.

[Dr. Hatamura, Committee Chairperson]

- We will have committee members and technical advisors participate in meetings depending on their interest. We have to adjust the number of participants by nominating Committee members and technical advisers participating in the case of interviewing the applicable parties involved in on-site restoration work or if it is necessary to limit the number of participants with consideration of the interviewee's position or due to the restrictions of the place of the interview.
 - This kind of interview is, in principle, held within closed doors, but it will be opened to the public subject to the consent of the interviewee. The public interview is to be held on the condition that the interviewee is a public figure who is accountable to the people of Japan.
 - The Secretariat basically stores and manages all the interview results and other materials in an integrated manner. The Secretariat will provide Committee members and technical advisers with copies of interview reports at their request with appropriate countermeasures taken against the leakage of information. I hope that the Committee members and technical advisers will store them securely.
- Agreed as in Attachment 3.

- Explanations from TEPCO

[Dr. Oike, Committee member]

- Please indicate the time series of major events after the earthquake until the tsunami hit the Nuclear Power Station. I heard that the office became dysfunctional as a result of the fall of the ceiling. Why did the ceiling of the earthquake-resistant building fall?
- (TEPCO) Employees were about to move to the earthquake-resistant building and to start post-quake arrangements. We will summarize the arrangements we made until the tsunami hit.
- The earthquake caused a subsidence of approximately 1 m. Do you have

any data showing the precise figure?

- (TEPCO) We have not received the exact amount of subsidence from the Geographical Survey Institute, but we are making use of other information such as GPS data and making an investigation.

[Mr.Yoshioka, Committee member]

- Units 1 through 3 of the Fukushima Daiichi Nuclear Power Station are all different with regards to their principal contractors. Please tell us the characteristics and weak points of each Unit.
- (TEPCO) Unit 1 is a different type. Countermeasures against degradation including anti-aging countermeasures and shroud replacement were taken for Units 2 and 3, and we do not think either one is particularly weaker than the other.

[Mr.Takasu, Committee member]

- How is the progress of TEPCO's Fukushima Nuclear Accidents Investigation Committee?
- (TEPCO) The committee consists of the vice president, executive officers in charge of non-nuclear sectors, and eight outside experts, who are expected to finish a report by the end of this year.

4. Others

- Explanation for Schedule
 - The third meeting of the Committee will be held on September 27 (Tue.), when the progress of the investigation will be reported. Therefore, the meeting might be held with closed doors depending on the situation.
 - Committee members and technical advisors are expected to make an inspection tour at the Tokai Daini, Onagawa, Hamaoka, and Kashiwazaki-Kariwa Nuclear Power Stations.

* Created: Secretariat of Investigation Committee on the Accident at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company