## The 13th Meeting of the Investigation Committee on the Accident at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company Comments at the Press Conference by Chairperson of the Committee Dr. Hatamura

Date and time: From 16:30, Monday, July 23, 2012 Venue: 1st Floor Lecture Hall, No.3, Otemachi Joint Government Building

My name is Yotaru Hatamura, and I am Chairperson of the Investigation Committee.

Today, the Investigation Committee on the Accident at the Fukushima Nuclear Power Stations of Tokyo Electric Power Company compiled its Final Report.

Since the 1st Meeting in June last year, the Committee has continued its investigations for a period of just over 13 months.

As I said when announcing the Interim Report, the issues to be investigated were so many in number that we sometimes wondered if we really could compile the Final Report. But in the end, we have somehow managed to finish it.

Like the Interim Report, the Final Report comes in two parts ("Main Text" and "Attachments"), the Main Text consisting of around 450 pages and the Attachments around 380.

We have also drawn up a Summary of the Final Report as a separate, condensed version of the Report.

As there is not enough time to explain the content of the Final Report in detail today, I can only ask you to read it for yourselves afterwards. However, to assist you when you do so, I will now briefly explain the composition of the Final Report and how it relates to the Interim Report, among other matters.

The Main Text of the Final Report consists of six chapters, numbered I to VI.

The Report opens with Chapter I, which gives an overview of the Committee, the Committee's activities, and the relationship between the Final Report and the Interim Report.

The Committee's activities, as described in Chapter I, include site inspections at the Fukushima Dai-ichi and Dai-ni Nuclear Power Stations, among other locations, as well as interviews with numerous stakeholders including TEPCO employees, officials of the Nuclear and Industrial Safety Agency (NISA) and other government bodies, Cabinet Ministers of the day, personnel of local authorities inside Fukushima Prefecture, and so on.

We interviewed a total of 772 persons for a combined total of approximately 1,479 hours. The number of interviewees does not reflect the total number of interviews, as some people were interviewed more than once.

Next, I will briefly explain the relationship between the Final Report and the Interim Report, as outlined in Chapter I.

The Final Report forms a coherent whole together with the Interim Report, and mainly describes the results of investigations made after the Interim Report.

However, to make the relationship with the Interim Report clear, the Final Report also includes suitable quotations from the Interim Report, with alterations made wherever necessary.

Chapters II to V basically state factual relationships discovered by our investigation.

Chapter II starts on page 7. It corresponds to Chapters II and IV of the Interim Report, and describes the state of damage and accident response at the Fukushima Dai-ichi and Dai-ni Nuclear Power Stations.

Given the difficulties encountered in conducting site inspections near the nuclear reactors, we have studied technical issues in as much detail as possible. I therefore hope that you will read this part of the Report together with the data in the relevant Attachments.

Chapter III, starting on page 191, corresponds to Chapter III of the Interim Report. It deals with the state of organized response after the occurrence of the disaster.

Among others, it gives an overview of the response by the Prime Minister's Office and other government organs.

Chapter IV, from page 213, corresponds to Chapter V of the Interim Report. It describes response measures primarily implemented outside the power stations to prevent the spread of damage, with specific sections on monitoring, SPEEDI, evacuation of citizens and other issues.

In Chapter V, starting on page 297, discusses matters that need to be considered in terms of preventing accidents and the spread of damage. It corresponds to Chapter VI of the Interim Report.

This part of the Report includes scientific knowledge concerning earthquakes and tsunamis, and future directions for measures against severe accidents.

Chapter VI, starting on page 361, could be described as the core of the Final Report. As well as analyzing problems that have been identified in our investigations so far, it includes a number of recommendations by this Committee.

Chapter VI opens with an "Introduction", followed by "1 Analyses of Major Problems" starting on page 363. Here, after analyzing seven major problems identified in our investigations so far, we make a number of recommendations in connection with them.

To list the subject headings only, we discuss (1) TEPCO's response to the accident and the damage to the plant, (2) The response to the accident by the government and other bodies, (3) Measures to prevent the spread of damage, (4) Accident prevention measures and disaster preparedness, (5) Nuclear safety regulatory bodies, (6) TEPCO competence, and (7) Harmonization with international practices including IAEA safety standards.

The next section in Chapter VI, "2. Recapitulation of Major Issues", starts on page 408. Here, we review nine important topics regarded as being of particular significance, along with recommendations concerning each of these.

Again, the subject headings discussed are (1) Building fundamental and effective disaster preventive measures, (2) Lack of awareness of complex disasters, (3) Change needed in attitudes to risk awareness, (4) Importance of deficiency analysis from the disaster victims' standpoint, (5) The problem of "unexpectedness" and lack of a sense of crisis by administrative bodies and TEPCO, (6) Issues with the government's crisis management system, (7) Issues with the provision of information and risk communication, (8) Importance of a safety culture vital to the lives of the people, and (9) The need for continued investigation to clarify the whole picture of accident causes and damage.

Finally, Chapter VI concludes with "3. Recommendations for Preventing the Recurrence of a Nuclear Disaster and Mitigating Damage", starting on page 432. It repeats all the

recommendations made in the Interim Report and this Final Report, reorganized into seven areas.

This Committee strongly urges the government, relevant local authorities, businesses and other relevant bodies to incorporate these recommendations in their future measures for safety and emergency response, and to implement them.

After Chapter VI, the Main Text of the Final Report concludes with the "Chairperson's Remarks" starting on page 443.

The Attachments to the Final Report mainly relate to Chapter II of the Main Text. They consist primarily of compiled materials showing the details of technical analyses, as well as figures, tables, photographs and others.

Besides these, a timeline of activities by this Committee, the Cabinet Decision providing for the establishment of the Committee, the abridged proceedings of meetings held with invited overseas experts, and others have also been attached as reference materials.

The Summary of the Final Report is a condensed version of the Report, with particular focus on Chapter VI of the Main Text.

Today, we are also distributing a press release in English. After very briefly summarizing the activities of this Committee and other matters, it presents excerpts from the recommendations.

English translations of the Summary and the Final Report proper will be published on the website as soon as they are complete.

Finally, as Chairperson of this Committee, I will give my own remarks upon the compilation of the Final Report.

As I mentioned earlier, my remarks as Chairperson of this Committee are included at the end of the Main Text of the Final Report, and I would like to briefly reprise those remarks here.

In the Chairperson's Remarks, I put into words what has struck me in the process of our investigations over the last 14 months. And although the remarks are related to individual, specific response measures, I do not discuss each one individually, but put into words what we have learnt from them.

To use my own words, I made these remarks in the awareness that it is important to define the controlling factors that lie within several phenomena and what sort of structure they have, so that they can be turned into proper knowledge and enhanced, thereby making preparations for this knowledge to be properly understood and used in future.

Normally, I think, this kind of report on an accident investigation would not contain such remarks. However, as I said right at the beginning when we first started this task, our investigation should be capable of standing up to critical evaluation 100 years from now. That is, I would not want people 100 years from now to say, "Well, is that all they could write?" That's why I wanted to express in words that, yes, we have indeed given the accident a considerable amount of thought.

The remarks can be found right at the end of the Main Text of the Report, and I would ask you to take a look at them later.

Lack of time prevents me from going into each of them in detail, but I will now briefly explain the remarks, of which there are seven in all.

The first remark is "Possible phenomena occur. Phenomena that are considered impossible

also occur." If you look at the issue as a whole, I think you will agree that this is exactly right. For example, ever since the Nuclear Safety Commission decided that there was "no need to consider a long-term power loss", no one considered such a thing possible. But that is actually what happened.

We used to think that "Possible phenomena occur", but a point made in our international meetings was that "Phenomena that are considered impossible also occur". In other words, the foreign experts, and in particular André-Claude Lacoste of France, reminded us that we should understand this as the fearsome might of nuclear power. I think we need to learn from this kind of thing.

The next remark is "We do not see what we don't want to see. We see what we want to see."

In its action against natural disasters, TEPCO had arranged no measures for accident management related to tsunamis; it appears not to have considered the possibility of more than one nuclear reactor being affected by a disaster at the same time.

While I'm sure that everyone is working really hard and earnestly all the time, if they start from the assumption that more than one disaster could not occur at the same time, or don't want to think that it could, that is precisely when a major disaster could occur.

The next important thing is that "Everything changes; respond flexibly to changes."

To me, it seems that awareness of the possibility of large-scale earthquakes and tsunamis being spawned off the coast of Fukushima Prefecture was growing, little by little, and that such an event had become or was becoming a major risk.

But it seems that no one paid attention to this.

The conditions surrounding phenomena are constantly changing. We need to keep searching, constantly, for appropriate measures in response to change. This accident seems to have occurred because people did not keep searching for appropriate measures and were carrying on under the assumption that "nothing would happen".

Next, "Consider every possibility and make full preparations."

The possibility of an earthquake had been fully considered and preparations made. But I think that less consideration had been given to tsunamis, and almost no preparations had been made.

If sufficient preparations had been made for the occurrence of unforeseen events, things might not have gone as far as this major accident. I think we need a humble attitude of making preparations to ensure that things do not come to the worst, rather than denying the possibility that the unthinkable might happen.

The next remark is "Creating a framework alone does not ensure functionality." Frameworks can be created, but objectives are not shared. We saw a glimpse of this in SPEEDI. There was a perception that, if SPEEDI information on emission sources could not be obtained, it could not be used for evacuation.

Another point is that off-site centers could not be used, as they are not fitted with radiation protection equipment.

From this we have learnt that, if the component members of an organization are not fully cognizant of the purpose of its framework and the role expected of it by society, it will not fulfill the functions incumbent upon it as a whole.

Next is "Acknowledge the presence of dangers, and create a culture that encourages straightforward discussion about risks." To my mind, nuclear power generation is risky because it involves very high concentrations of energy. In this accident, we see the result of nuclear power generation being promoted in reliance on the "myth of safety", created to smooth over public unease. The Nuclear Emergency Response Manual did not address severe accidents. And advance emergency response drills seem to have been completely inadequate.

If the existence of risk is not acknowledged, truly necessary measures for emergency response and disaster mitigation cannot be taken.

It is also important to consider the balance between convenience and risk. I feel that a culture in which risk can be discussed has not been sufficiently fostered in our country.

Finally, "It is important to make judgments and take action by looking with our own eyes and thinking with our own brain." In the case of this accident, we have seen many people who work in the front line making very accurate judgments and taking proper action. And I think it may have been thanks to the dedicated efforts of these people that we managed to stop this accident from becoming more severe than it was already.

To deal appropriately with unforeseen accidents and disasters, I think we need to have attitude of thinking independently and confronting situations by ourselves, as well as thinking flexibly and proactively, not passively.

Finally, then, I have concluded this somewhat lengthy talk by considering the seven topics in my remarks and outlining how they are related to real action.

With this, I bring my initial explanation as Chairperson of this Committee to an end.