

**Statement by H.E. Mr. Banri KAIEDA,**

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**Head of the Delegation of Japan**

**to the IAEA Ministerial Conference on Nuclear Safety**

**20 June 2011**

Mr. President, Mr. Director General, Distinguished Delegates, Ladies and Gentlemen,

I would like to express my appreciation for giving me the opportunity to explain the details of the disaster that struck Japan, the ongoing response of the Government of Japan, and the lessons we have learned in the last few months. Japan sustained serious damage by the Great East Japan Earthquake of March 11, as well as the subsequent tsunami that resulted from the earthquake. This disaster was then compounded by the damage that the tsunami caused to nuclear power stations. In the face of this hardship, we have received support and expressions of solidarity from around the world. On behalf of Japan, I would like to express our sincere gratitude to you all.

Soon after the earthquake, the IAEA moved quickly to dispatch its experts to Japan. In late May, the IAEA also sent an International Fact Finding Expert Mission to Japan to investigate the accident in detail. We are grateful for that support. Japan is determined to continue to share its experiences and lessons learned from the accident proactively with the international community including the IAEA.

The earthquake measured a Magnitude of 9.0, the largest ever observed in Japan's recorded history, and resulted in a large-scale tsunami that exceeded 10 meters in height and wrecked extensive damage on eastern Japan. Taking into account both the dead and missing, the number of victims totals approximately 25,000, the vast majority of them victims of the tsunami.

The accident at Tokyo Electric Power Company (TEPCO)'s Fukushima Dai-ichi Nuclear Power Station was an unprecedented one for any country with regard to three points: the occurrence of a natural disaster followed by and compounded by a nuclear accident; the simultaneous progression of accidents at multiple nuclear units; and the continuation of the accident over an extended period of time.

It is Japan's responsibility to communicate the status of the accident to the international community in an accurate and timely manner, and to share the lessons we have learned with the international community. To that end, we have submitted to this IAEA Ministerial Conference the Report outlining our preliminary assessment of the ongoing situation at the accident sites. My speech today is based on this report.

The earthquake triggered the automatic shutdown of the three units, which were then in operation, out of six units at TEPCO's Fukushima Dai-ichi Nuclear Power Station. External power supplies were lost, but the emergency diesel generators functioned as intended.

However, approximately 40 minutes after the earthquake, the first big surge of the tsunami struck the TEPCO's Fukushima Dai-ichi Nuclear Power Station. The inundation height of the tsunami reached 14 to 15 meters, submerging and disabling all of the emergency diesel generators except for one at Unit 6, and all of the seawater pumps for cooling lost their function.

Even after the tsunami, the steam-driven reactor cooling systems functioned for some time to maintain the water levels in the reactors, but they stopped operation while normal power sources were not recovered. As water was not injected into the reactor pressure vessels of Units 1 through 3 for an extended period of time, the water levels lowered and the nuclear fuel became uncovered, which resulted in a melting of the cores. There were explosions at Units 1 through 4, presumably caused by hydrogen. Supplying water into and cooling the spent fuel pools located on the operation floor of the reactor buildings also became difficult. All of this took place in the period of less than one week.

In bringing the situation under control, we will continue to tackle four key challenges. These are; 1) to cool down the reactors; 2) to contain the spread of radioactive substances to the atmosphere and the sea; 3) rigorous and intensive monitoring; and 4) to ensure the safety of food, products and on-site workers.

On April 17, TEPCO made public its roadmap for handling the accident. This roadmap illustrated the process that would be followed to bring the reactors to cold shutdown conditions and the measures needed to contain the release of radioactive materials. Efforts are now being made in line with this roadmap. The government supports it and engages in strict oversight to ensure that the work is done in a safe environment.

While there are still uncertainties with the future of the situation, what we can do for sure is to provide all the necessary information to the international community as quickly as possible.

Looking further ahead, the damaged reactor cores will need to be removed, properly processed, and disposed of, and the areas contaminated with radioactive materials will have to be decontaminated. In addition, with the support of experts from around the world, we will tackle medium-term to long-term issues, including epidemiological surveys to assess the long-term impact of radiation exposure.

The Government of Japan has completed the evacuation of approximately 80,000 people who resided within a 20 km radius of the TEPCO's Fukushima Dai-ichi Nuclear Power Station. The Government of Japan has committed to making every possible effort to implement radiation monitoring and clean the environment in order to return these evacuees to their homes as quickly as possible.

It is important that we thoroughly identify and learn the lessons from the accident and share them with all those involved in nuclear energy.

The first lesson concerns the measures needed to prevent severe accidents. We need to ensure that we maintain essential safety functions and consider the possible height and frequency of tsunamis. In order to avoid failure of a plant's power systems, it is vital to introduce varied cooling systems and to diversify the power sources by providing multiple emergency power sources and power source vehicles.

The second lesson deals with the best response to severe accidents. Hydrogen generated from water-metal reactions poses a serious threat and, countermeasures should be considered to prevent hydrogen explosions. We have also learned from the accident the necessity of having a radiation shield, communication devices, and infallible emergency lighting in the main control room.

The third lesson deals with how to respond to a nuclear emergency. We need to establish systems to cope with the coincidence of a nuclear accident and a massive natural disaster. We should improve our communication with local residents and local governments. We should be prepared for a prolonged accident. As International cooperation is an effective tool, the enhancement of international information sharing systems is required.

The fourth lesson deals with enhancing our nuclear safety infrastructure. In order to clearly define the responsibilities for nuclear issues and to respond quickly to a large-scale accident, the Nuclear and Industrial Safety Agency will be made independent of the Ministry of Economy, Trade and Industry. The Government of Japan is moving quickly to consider such reform of our nuclear safety regulation systems and environmental monitoring systems. Japan will continue to contribute to the enhancement of the IAEA's safety standards, and further ensure and develop our human resources.

The fifth lesson is about safety culture. We need to establish and improve our safety culture, using the principles set out by the IAEA and getting back to the basics of pursuing defense-in-depth as an essence for ensuring nuclear safety.

On March 30, the Government of Japan issued directions for the emergency safety measures to all nuclear power plants in Japan to prevent another severe accident caused by

tsunamis. In May, we checked all the nuclear power plants in Japan, except for TEPCO's Fukushima Dai-ichi and Dai-ni Nuclear Power Stations, to confirm that appropriate measures were being implemented.

On June 7, the Government of Japan issued directions to the plants to take measures that were immediately needed, especially those needed to prevent a hydrogen explosion.

With these measures being implemented, we decided that there is no additional safety problem at any of the nuclear power plants in continuing operation, or in resuming operation if they are in inspection outage, with the exception of the Hamaoka Nuclear Power Plant of Chubu Electric Power Company. I would like to note that the Hamaoka Nuclear Power Station could be affected by a massive earthquake in the Tokai region, which is very likely to occur and by a devastating tsunami that would follow.

Based on the outcome of our rigorous examination of this accident, Japan will take drastic measures to ensure the highest level of safety. Taking safety as a prerequisite, we will consider how to deal with our future nuclear energy policy.

Japan would also like to propose undertaking new international cooperation in research and development that focuses on the nuclear safety technologies necessary to prevent another severe accident.

In addition, Japan would like to propose the following measures to facilitate the improvement of safety in global nuclear power generation, with the IAEA playing the key role:

- Strengthening IAEA safety standards and facilitating their application,
- Expanding the IAEA Safety Assessment Missions,
- Expanding the IAEA registration scheme for assistance during nuclear accidents,
- Encouraging stronger partnership among nuclear safety regulatory authorities, and
- Strengthening the nuclear safety-related conventions.

Japan has just established the "Investigation Committee on the Accidents at the Fukushima Nuclear Power Station of Tokyo Electric Power Company" The Committee will welcome suggestions of international experts and fully publish its conclusions. In the latter half of next year, we would like to host an international conference on nuclear safety in Japan in cooperation with the IAEA. By hosting the conference and building upon discussions at this Ministerial Conference and knowledge learned from the investigation of the accident, Japan would like to make the utmost contribution to the efforts on nuclear safety, which will be led by the IAEA.

We are extremely grateful for the continued support that countries around the world have kindly provided for Japan as we work towards restoration from the accident. This support has provided us with great encouragement. While we realize that restoration from this accident will be a tremendous challenge for our country, I am confident that we can overcome this crisis by fully using the wisdom not only of Japan but also of the entire global community.

Thank you for your kind attention.