Fire near General Waste Incinerator in Fukushima Daiichi NPS -Cause and Countermeasure-

<Reference> October 23, 2013 Tokyo Electric Power Company

- ■Date and Time
- At around 12:48 PM on July 2, 2013
- Location
 - Near the general waste incinerator in Fukushima Daiichi NPS
- Situation
- An associated company worker found the temporarily stored cartons etc burning. Immediately, the worker started to extinguish the fire, and TEPCO reported to Fire Department at 12:54 PM.
- At 1:23 PM, TEPCO's self-defense fire bridge started to extinguish the fire. At 1:37 PM, the fire extinguishment was confirmed by Fire Department.
- Fire burning was found over a range of approx. 4m X 2m, and 1-meter high.

*Only non-contaminated garbage such as lunch box etc. are treated in the general waste incinerator.



\bigcirc Causes of the fire

We attribute this fire to spontaneous combustion, judging from the following aspects:

- 1) The central part of wood pallet and the carton facing the pallet burned the most intensely.
- 2) The cartons had no plenty of rainwater protection, and were laid under environment which could cause fermentation with a little water for a long time.
- 3)The cartons were piled up to 1.0- to 1.5-meter high, and it formed insulating layers in which inner heat hardly emitted outside, and inner temperature could easily increase.
- 4) It was fine weather on that day, and inner heat hardly emitted because the carton surface were exposed to direct sunlight.
- 5) Fresh air went into via openings of the wood pallet laid downward, and fermentation reaction might have moved into oxidation reaction under the high-temperature environment, finally resulting in a further increase in inner temperature
- 6) In addition to the cartons, there lay inflammable and combustible materials nearby, and they fostered the fire.

\bigcirc Countermeasure against fire

- We will remove the temporarily stored inflammable and combustible materials near the incinerator, and provide these materials in a flexible container bags after desiccation.
- We will cover the flexible container bags with protection sheet, for the purpose of preventing rainwater from entering the bags, and avoiding fermentation.
- We will inspect the location where the flexible container bags are stored in accordance with the incinerator operation, and write the measured temperature down on a check sheet.



Flexible container bags covered with protection sheet