

[16] Public Announcement on Core Status

Increased interest the core damaged condition as meltdown (core melt) from the core damaged accident at the Fukushima Daiichi NPS, it has been pointed out that TEPCO continuously denied and hid the meltdown (core melt) even the core condition has been recognized.

However, there is no established definition for the term “core meltdown” (core melt) in respect of the specific status represented by such term, and each person understands this term differently. Therefore, TEPCO has used the terms “fuel damage” and “fuel breakage” to explain the status of the core, and never denied the possibility of a core meltdown.

Moreover, for each of its explanations, TEPCO has been using plain language, to the extent possible, which allows anyone to imagine the situation, based on the clarification of term definitions and the core status assessment through water level meter calibration and MAAP analysis.

The facts about what was actually disclosed are as follows;

[Facts found]

- Statements at TEPCO press conferences
 - By what we can confirm about the water level at present, we cannot deny the possibility that there is some damage at the top of the fuel. (March 12 press conference)
 - (In response to a question about whether TEPCO will admit the possibility that the fuel has been damaged) We believe that the fuel has been damaged because radioactivity at a higher-than-natural level has been released. (March 14 press conference)

<<Since March 20 iodine, cesium, tellurium, and ruthenium have been detected from the atmosphere within the power station site>>

- We consider that these materials have probably been discharged as a result of fuel damage. (March 25 press conference)
- (In regard to the level of fuel damage) It is not clear how much damage has actually occurred. (March 27 press conference)
- (In response to the comment that the Nuclear Safety Commission of Japan has started using the word “meltdown,” but TEPCO has not) We do not have enough information to either confirm or deny this. (March 28 press conference)
- (In response to the question about whether TEPCO considers that a fuel “melt” has not occurred based upon the current data) The data shows that there is a high possibility that the fuel has been damaged, but we do not have enough information to determine the volume or degree of that damage. (March 28 press conference)

<<March 28, plutonium detected>>

- Plutonium is a byproduct of atomic fission, so we cannot deny the possibility that the fuel has been damaged. (March 29 press conference)

- On April 10, TEPCO explained to the Minister of the Economy Trade and Industry that a core melt occurred at Units 1 to 3, but that the extent cannot be assessed at this time. At this time the Minister, NISA and TEPCO discussed the ambiguity of the term.

- As a result, the minister ordered to use “fuel pellet melt” instead of “core melt”.

- Statements made at TEPCO press conferences

<< On April 18 the “Definition of Core Damage” and “Results of Presumption that the Fuel Pellets Melted and Serious Damage Occurred” was reported on at the Nuclear Safety Commission of Japan>>

- (In response to the question about whether a core melt is not being considered) We believe part of the pellets have melted and are exposed from the fuel sheath, but we have not been able to confirm this. TEPCO is consistently using the term “core damage” because the term “melt” conjures different images for different people. (April 20 press conference)
- It’s not that we’re saying “there wasn’t a core melt” while estimating that approximately 70% of the core has been damaged. What we’re saying is that, yet at this moment, since it has not been confirmed yet, there are cases where the fuel sheath have fractured or where pellets have melted due to high temperatures, and we have explained that the degree of damage itself is estimated to be approximately 70%. (April 20 press conference)
- (In response to the question: thus far, in response to the question “Was there a melt?”, the answer has been “There was damage,” so does this mean that TEPCO has not denied a melt?) That is correct. We do not know yet if a portion, or the entirety of the core, melted and fell down, so we are not denying that. However, with the situation being still unclear, we are explaining that we have found, from the results of measurements, as a level of damage, 70% of the core has been damaged, rather than whether there was a melt or not. (April 20 press conference)
- We believe there is the possibility that melted fuel has accumulated. (April 24 press conference)

<<On May 12 TEPCO announced that, “ inspection and calibration of the water level instrument of the reactor pressure vessel (RPV) of Unit 1 has shown that the water level was approximately 5m below the top of the fuel rods”>>

- We do not believe the fuel assembly is in its original position. However, we have not been able to confirm the extent of fuel damage, and do not know whether it is around the lower portion of the RPV, or have just slightly slipped down while maintaining approximately its original shape. (May 12 press conference)

- We believe that the fuel assembly is either below its original position or possibly at the bottom of the RPV. However, we have not been able to confirm what condition the fuel assembly is in at the bottom of the pressure vessel. We believe that the fuel assembly melted, and is being cooled at the bottom. (May 12 press conference)
- We believe that this is not a situation like the China Syndrome situation where the fuel has burned through the pressure vessel, PCV, and reactor building. Fuels are not in their original shape; however, those have remained, and have been cooled in the bottom of pressure vessel. (May 12 press conference)

<<On May 15 TEPCO announced its core assessment conducted through MAAP analysis>>

- The results of analysis showed that, in Unit 1, the fuel pellets melted to the bottom of the pressure vessel at a relatively early stage after the tsunami.