Application status of the Accident Operation Manuals of Unit 1 at Fukushima Daiichi Nuclear Power Station associated with the Tohoku-Chihou-Taiheiyou-Oki Earthquake (Summary)

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1. What we have summarized

(1) How we actually operated after the earthquake

Concerning the accident operation at the time between the occurrence of the earthquake and the seawater injection, we examined the data and reports that were already announced in order to summarize the operation for safety measures (shutdown, cooling, and containment)

(2) Selecting the Accident Operation Manuals

Regarding the existing Accident Operation Manuals (phenomenon-base, signal-base, and severe accident), we checked the assumed accident overview and selected the following manuals that we think were used in response to the accident.

- ① Phenomenon-base: scram trouble of nuclear reactor, When the main steam valve is closed
- ② Signal-base: External network accident, Loss of all AC power
- ③ Severe accident: AM (accident management) operation procedure, fire extinction system (alternative water injection procedure)
- ④ Severe accident: AM (accident management) operation procedure, Inactive gases (pressure-relief vent procedure)

(3) Comparison between the actual operation and the manuals

We have summarized an application status by comparing the accident manual we actually used and the actual operation procedure employed in terms of security measures.

2. Results of application status

Since we have no evidence whether we validated the procedures in response to the accident, we compared the similar accident manuals and the actual operation we have done. At this moment, we think there was no problem for the operation implemented.

[Reference] How to use the Accident Operation Manual

When responding to an accident that requires emergency operations (such as shutdown), it is supposed that we validate the actual operation done after the event has settled down to some extent, so that we will prioritize stabilizing the event without looking at the manuals. Moreover, at the time of an accident that requires flexible responses, we do not necessarily abide by the existing manuals.

As for the response to the accident at Unit 1 associated with the earthquake, there exists no evidence whether we checked the procedures, and furthermore, there was no room for us to use the existing accident manuals (severe accident) as it originally is, in the circumstances after the tsunami attack.