（Attachment 1）

Regarding the injection of nitrogen to the reactor containment vessel of Unit 3 at Fukushima Daiichi Nuclear Power Station (Summary)

(1) Expected effect to avoid hydrogen explosion due to the injection and its work procedures

Currently, because the inside of the reactor pressure vessel (RPV) is in steam atmosphere, the density of hydrogen and oxygen, generated inside the RCV or the PCV due to water radiolysis, is stopped very low. Thus, there is no rapid hydrogen explosion. However, there is a possibility that the hydrogen density becomes high and reaches to the inflammable limit because the generation of water vapor becomes lower and the generation of hydrogen due to water radiolysis continues, continuing to accelerate cooling the reactor. Therefore, we think that it is necessary to inject nitrogen.

(2) Environment impact due to radioactive material released from the PCV by the injection

The radioactive material does not newly shift to the vapor phase part of the PCV by the injection of nitrogen. Thus the amount of vapor per a certain period released from the PCV increases due to the injection of nitrogen and the steamy condensation prevention effect, however there is not a possibility that the nitrogen injection affects the surrounding environment.

(3) Environment impact due to radioactive material in the event that rapid hydrogen explosion occurs inside the PCV

Our evaluation result shows that the environment impact due to the injection is below the exposure dose limit (1mSv per annum) to the general public at the site boundary and it becomes a still smaller value at the point distant from it. Thus the impact due to radioactive material in the event that rapid hydrogen explosion occurs is negligible.

(4) Radiation exposure control method for the workers during the connection work between the nitrogen generator and the PCV

The injection work is conducted inside the PCV which is designated as high-dose area. We fully take care of the radiation exposure control by selecting the injection point where the radiation dose is relatively low,

implementing time management, confirming waiting area and flow line of the workers with the radiation dosage map and using the bucket vehicle.

Moreover the following works is done in order to reduce the radioactive level.

① Dose-measurement by γ camera
② Clean-up around 315-degree machinery hatch by vacuum cleaner
③ Shield by installation of steal plates
④ Confirming around nitrogen injection area by the robot

END