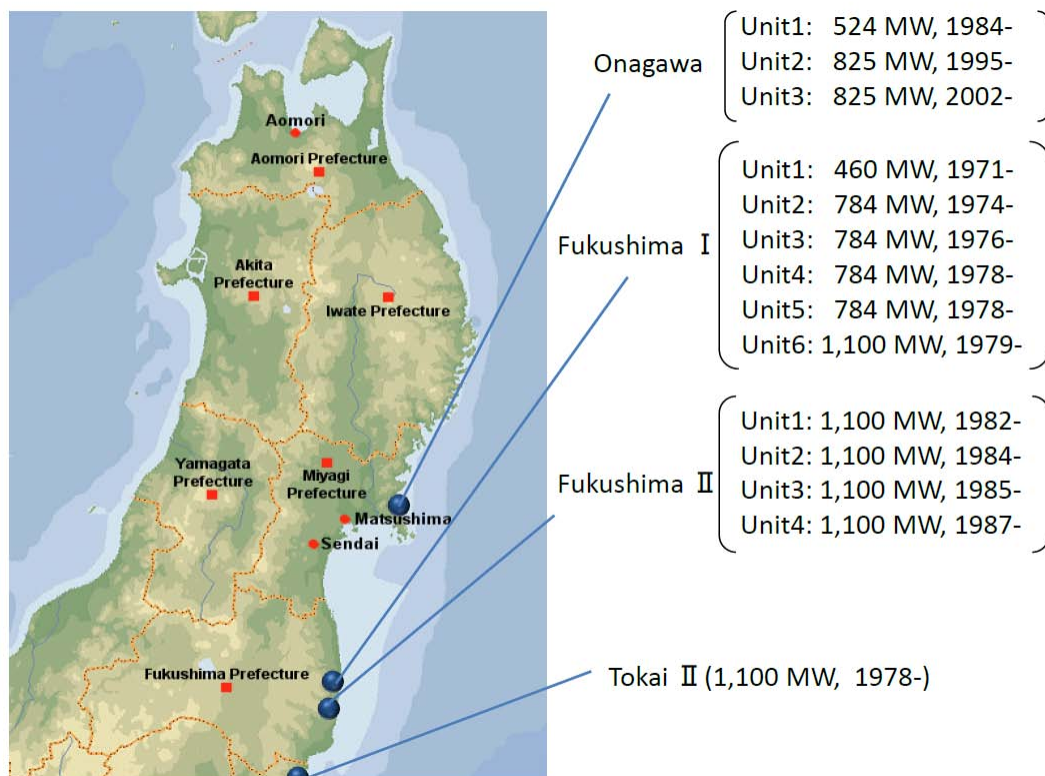


Tohoku Pacific Earthquake and the seismic damage to the NPSs

11. 03. 15 As of 23:30

Nuclear and Industry Safety Agency

Earthquake occurrence and automatic shut-down of nuclear reactors



The Tohoku Pacific Earthquake of magnitude 9.0 struck the northeastern part of Japan at 2:46 pm on March 11th, 2011.

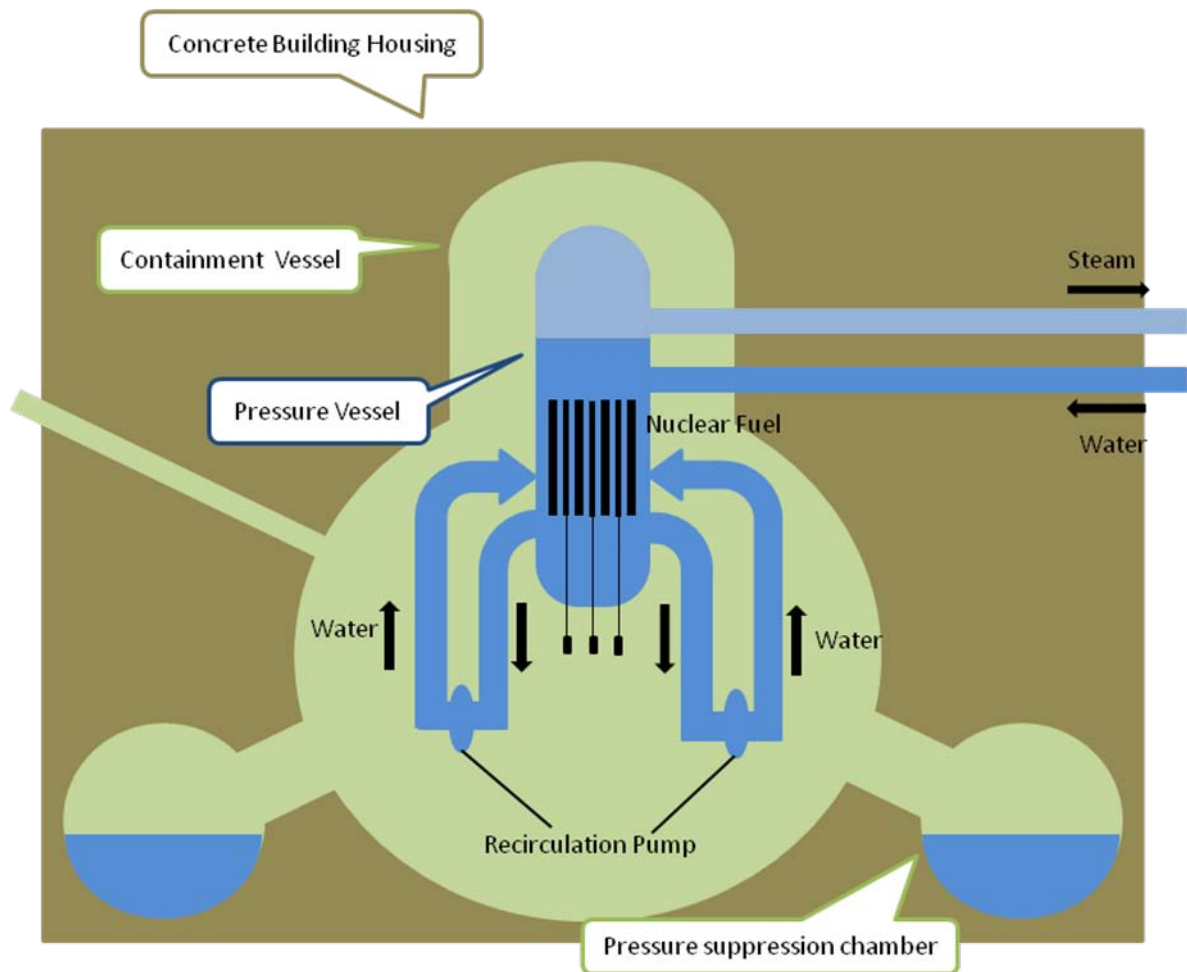
While 3 reactors (Fukushima Dai-ichi (I) Unit 4,5,6) were under periodic inspection, 11 reactors (Onagawa Unit 1,2,3; Fukushima Dai-ichi (I) 1,2,3; Fukushima-Dai-ni (II) Unit 1,2,3,4; and Tokai Dai-ni (II)) were automatically shut-down.

After the automatic shut-down, the Unit 1-3 at Onagawa Nuclear Power Station, the Unit 1-4 at Fukushima II Nuclear Power Station, and the Unit at Tokai II Nuclear Power Station have been cold shut down safely.

Outline of the Fukushima I Nuclear Power Station



(Fukushima Dai-ichi nuclear power station)



(Structure of BWR)

Report concerning incidents at Unit1, 2, 3 and 4 at the Fukushima I NPS

Unit 1 An explosion caused by hydrogen buildup blew the upper-part off a concrete building housing. What was occurring in the reactor was not a so-called “meltdown.” Its containment vessel was not damaged by the explosion.

- After the automatic shut-down of the reactor, water supply function run by seawater pump failed by Tsunami (it is believed that this was caused by Tsunami in which its scale was beyond our assumption), and the temperature of the reactor core went up.
- At 15:36 on March 12, water levels dropped inside the pressure vessel. Reacted metal and water generated Hydrogen, and the Hydrogen, which leaked outside of the containment vessel, caused the explosion.
- An explosion caused by hydrogen buildup blew the upper-part of a concrete building housing.
- Cesium and Iodine were detected, it is believed that a part of nuclear fuel was damaged and a small amount of radioactive material was leaked into core cooling water. However, this was not a so-called “meltdown” which means that whole reactor core melts down.
- It is confirmed that the containment vessel had not been damaged. There is no risk of a hydrogen explosion in the containment vessel because there is no oxygen in it. There is no high probability of leaking large amount of radioactive material currently.

Unit 2 TEPCO reported that there was an explosion sound at Unit 2 of Fukushima I at 6:10 am on March 15. There is a possibility that the suppression chamber is damaged

- After the automatic shut-down of the reactor, water injection function was sustained but the reactor water level decreased on March 13th. TEPCO reported NISA that

Unit 2 of Fukushima I NPS reached a situation specified in the Article 15 of the Act for Special Measures Concerning Nuclear Emergency Preparedness on March 14th.

- At 6:10 on March 15th, TEPCO reported to NISA that there was an explosion sound at Unit 2. Given the fact that the pressure in the suppression chamber of Unit 2 decreased, there was a possibility that there was certain damage on the suppression chamber.

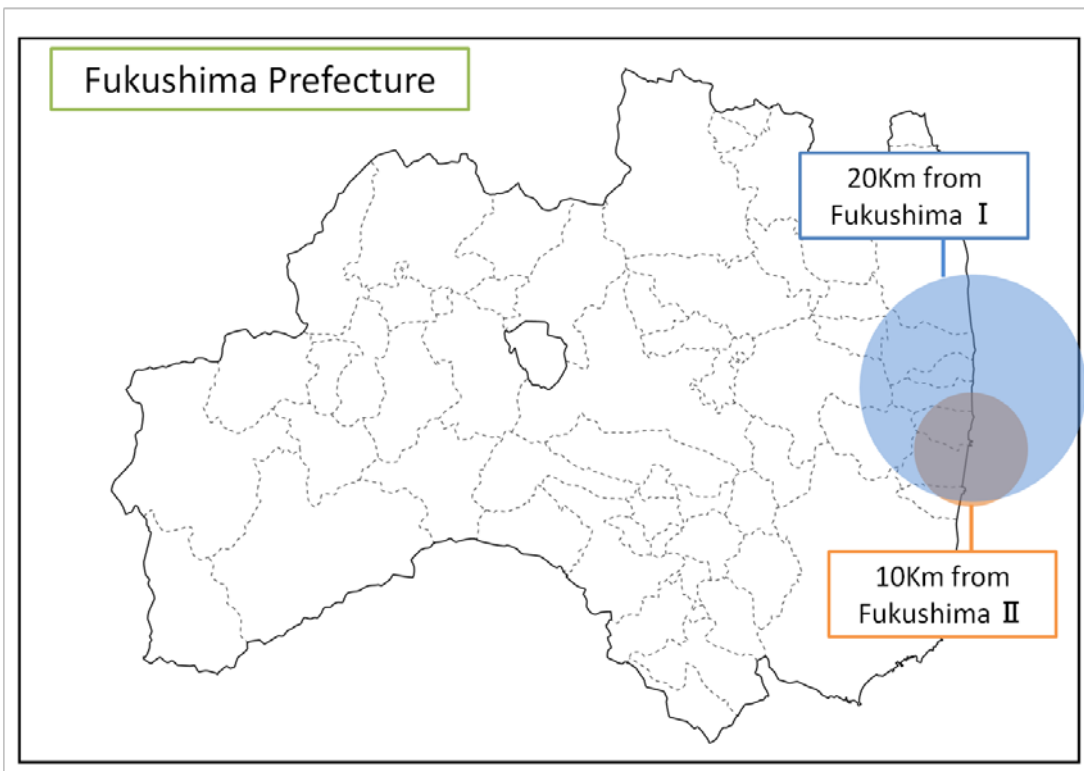
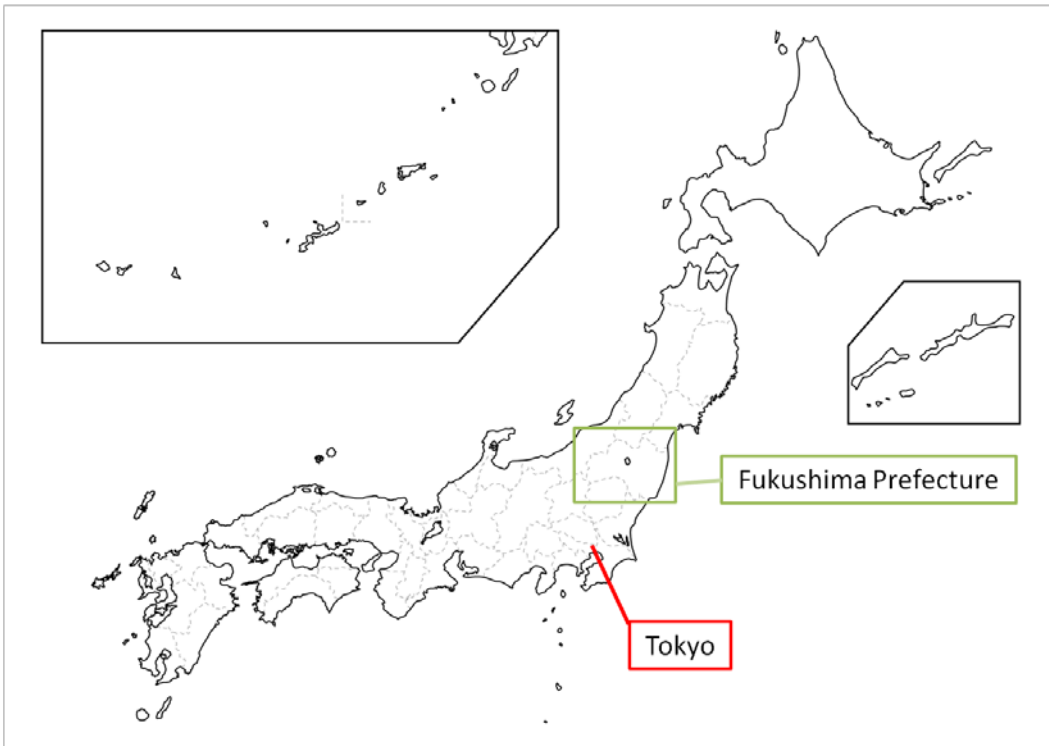
Unit 3 An explosion caused by hydrogen buildup blew the concrete building housing, which is same process as the Unit 1. Its containment vessel was not damaged by the explosion as well.

- The explosion took place at 11:01 am on March 14th. There is no risk of a hydrogen explosion in the containment vessel because there is no oxygen in it.

Unit 4 On March 15th, a fire took place at Unit 4 of Fukushima I NPS, although the operation of Unit 4 was suspended under periodic inspection. The fire was extinguished (around 11:00 am on March 15th). The temperature of water in the Spent Fuel Storage Pool has increased.

Current Situation

- According to the observation at the monitoring point 6, 11,930 μ Sv/h was measured at 9:00 on 15th March.
- Evacuation as far as 20 kilometers from Fukushima I NPS and 10 kilometers from Fukushima II was almost completed (see the diagram below). The residents in the areas from 20 kilometers to 30 kilometers radius from Fukushima I NPS are directed to stay in-house.



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