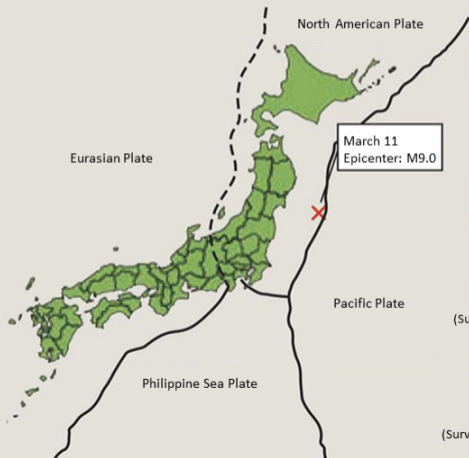


Damage due to the Great East Japan Earthquake

- A 9.0-magnitude earthquake occurred off the coast of Sanriku at 14:46 p.m. on Friday, March 11, 2011. The Earthquake and subsequent tsunami caused severe damage mainly to the Tohoku region.
- The earthquake was the largest ever recorded in Japan and the fourth biggest in the world since 1900.



Human damage	
Dead	15,899
Missing	2,526
Injured	6,167

Damage to buildings	
Completely destroyed	122,000
Half destroyed	283,117
Partially destroyed	731,573

(Surveyed by the National Police Agency; as of March 10, 2021)

Disaster victim support	
Evacuees nationwide	38,882

(Surveyed by the Reconstruction Agency; as of December 9, 2021)

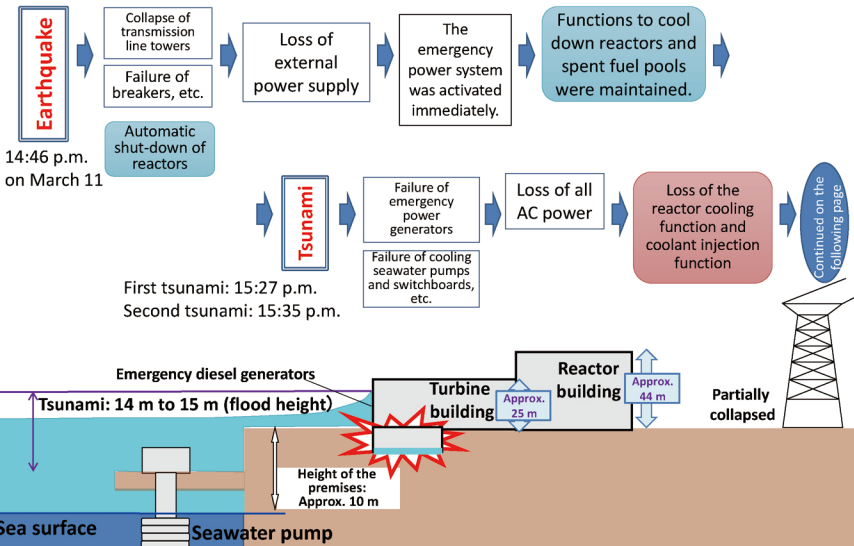
Accident at the Nuclear Power Station



**Tokyo Electric Power Company (TEPCO)'s Fukushima Daiichi NPS
Unit 3 (shot from the air)**

(Shot on March 16, 2011; Provided by TEPCO)

Factors of the Accident: (Estimated) Influence of the Earthquake and Tsunami



Factors of the Accident: (Estimated) Status within the Reactor

Continued from the previous page

Loss of functions to cool down reactors and inject coolant

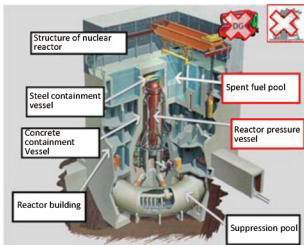
Increase in reactor pressure due to steam

Pressure reduction by opening valves

Failed to take these measures on a timely basis

Temperature increase due to fuel heating without coolant

Alternative coolant injection using firefighting pumps, etc.



Events that occurred

- **Generation of hydrogen** due to water-zirconium reaction
→ **Hydrogen explosion**
- **Overheat of core fuel**
→ **Core melt**
- **Deterioration of air tightness at the pressure vessel penetrator**
→ **Part of the melted fuel flowed down from the pressure vessel to the containment vessel.**
- **Deterioration of the containment vessel**
→ **Outflow of high-level radioactive-contaminated water**
→ **Discharge of radioactive materials into the air**

Almost avoided

- ◆ **Steam explosion**
- ◆ **Recriticality**
- ◆ **Fuel damage due to evaporation of coolant in the spent fuel pool**