

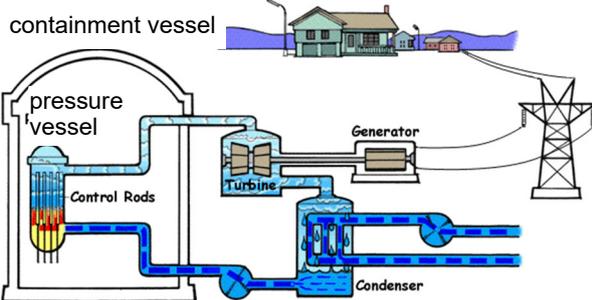
Glossary on Nuclear Reactors

“Fukushima Nuclear Reactor Problem Explained” (NHK-CNN Video, March 14, 2011) (3:07)

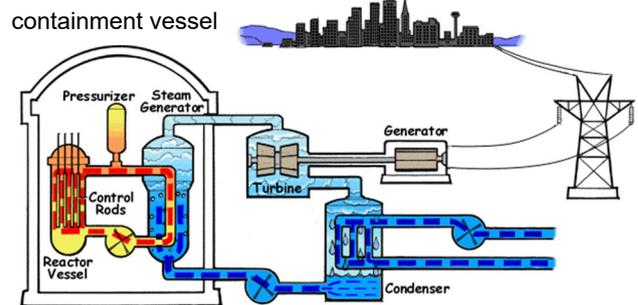
<http://www.youtube.com/watch?v=BdbitRlLDc&feature=related>

reactor containment building	原子炉建屋
the Fukushima Daiichi nuclear power plant	福島第一原子力発電所
regular inspection	定期点検
nuclear reactor	原子炉
robust wall	頑丈な壁
uranium	ウラン U (発音注意)
fuel rod	燃料棒
nuclear fission	核分裂
meltdown	熔解
control rod	制御棒
power outage	停電
emergency diesel power generator	緊急ディーゼル発電機
safety measures	安全措置
JAEC (Japan Atomic Energy Commission)	原子力委員会 (内閣府)
NRA (Nuclear Regulation Authority)	原子力規制委員会 (環境省) 2012 -
cf. NSCJ (Nuclear Safety Commission of Japan)	原子力安全委員会 (内閣府)
NISA (Nuclear and Industrial Safety Agency)	原子力安全・保安院 (経産省→2012 より環境省)
IAEA (International Atomic Energy Agency)	国際原子力機関
coolant	冷却材
precaution	用心、警戒
containment vessel	格納容器
cf. pressure vessel	圧力容器
suppression pool, pressure suppression chamber	圧力抑制室
BWR (Boiling Water Reactor)	沸騰水型炉 → 東京電力など
PWR (Pressurized Water Reactor)	加圧水型炉 → 関西電力など

BWR



PWR



Figures from Wikipedia

BWR (Boiling-Water Reactor) 0:48 <https://www.youtube.com/watch?v=4bvCDheLm5A>

PWR (Pressurized-Water Reactor) 1:03 <https://www.youtube.com/watch?v=Qthg5xE196w>

By Tennessee Valley Authority (tva.com) 2013/07/25

●沸騰水型(BWR) : 東京・東北・中部・北陸・中国の各社が採用。

●加圧水型(PWR) : 関西・四国・九州・北海道の各社が採用。

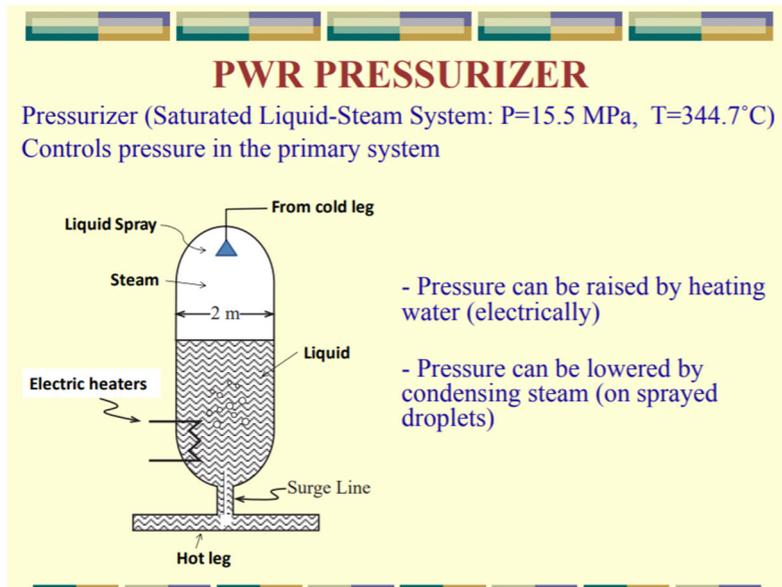
A recent video by Science Magazine, 2021/03/18 (4:23):

https://www.youtube.com/watch?v=Lxg38I0P7z4&ab_channel=ScienceMagazine

Pressure in PWR

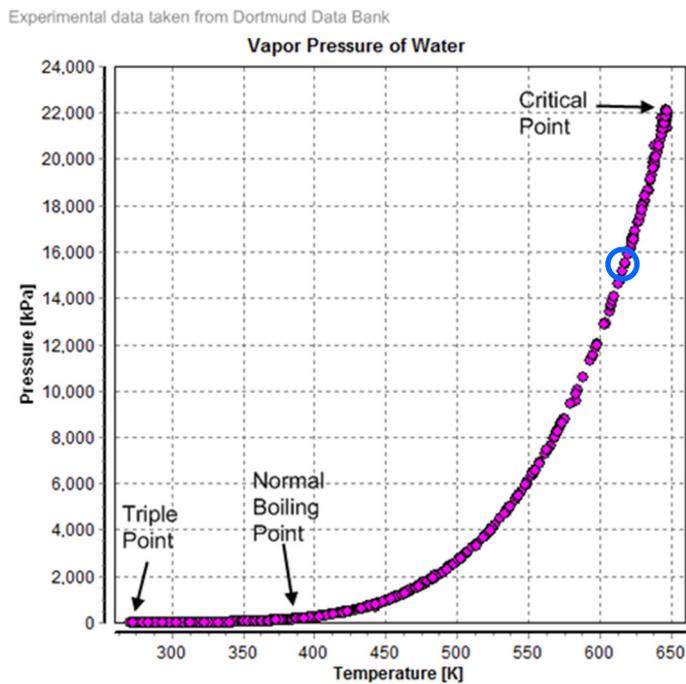
https://ocw.mit.edu/courses/nuclear-engineering/22-06-engineering-of-nuclear-systems-fall-2010/lectures-and-readings/MIT22_06F10_lec06a.pdf

Prof. J. Buongiorno From his lecture note at MIT



Vapor-Pressure Diagram of H₂O (Wikipedia)

The critical point is at 220 atm, 370°C



Above about 900°C

