

# Fukushima wastewater plan

Japan will release some 1.37 million cubic metres of treated water into the ocean following the 2011 Fukushima nuclear meltdown.

The plan has approval from the UN atomic watchdog

**1 Cooling water:** Water is contaminated when cooling water, plus ground and rainwater, make contact with radioactive debris from fuel rods in reactor

**Reactor**

**2 Contaminated water:** Wastewater is run through existing treatment system to reduce concentration of radioactive nuclides such as caesium and strontium

**3 ALPS – Advanced Liquid Processing System:** Removes nuclides to almost undetectable levels – except tritium hydrogen isotope

**Fuel rods:** Thousands of rods inside reactor. During meltdown rods crack apart – radioactive pellets released

**4 ALPS-treated water:** Stored in over 1,000 tanks supplied by plant operator Tepco. Each tank holds 1,200 cubic metres

**5 Diluting tritium:** Water is diluted to 1,500 becquerels\* per litre before release into Pacific Ocean



**Tritium released by nuclear plants (trillions of becquerels per year)**

<b>Fukushima Daiichi (Japan)</b>	<b>22</b> (planned)
Tricastin Nuclear Power Plant (France)	35
Hongyanhe Nuclear Power Plant (China)	87
Kori Nuclear Power Plant (South Korea)	91
Qinshan Phase III N-plant (China)	143
Darlington Nuclear Station (Canada)	220
Heysham Nuclear Power Station (UK)	390



**World Health Organisation:** Recommended limit for tritium in drinking water is 10,000 becquerels per litre

\*Units of radioactivity