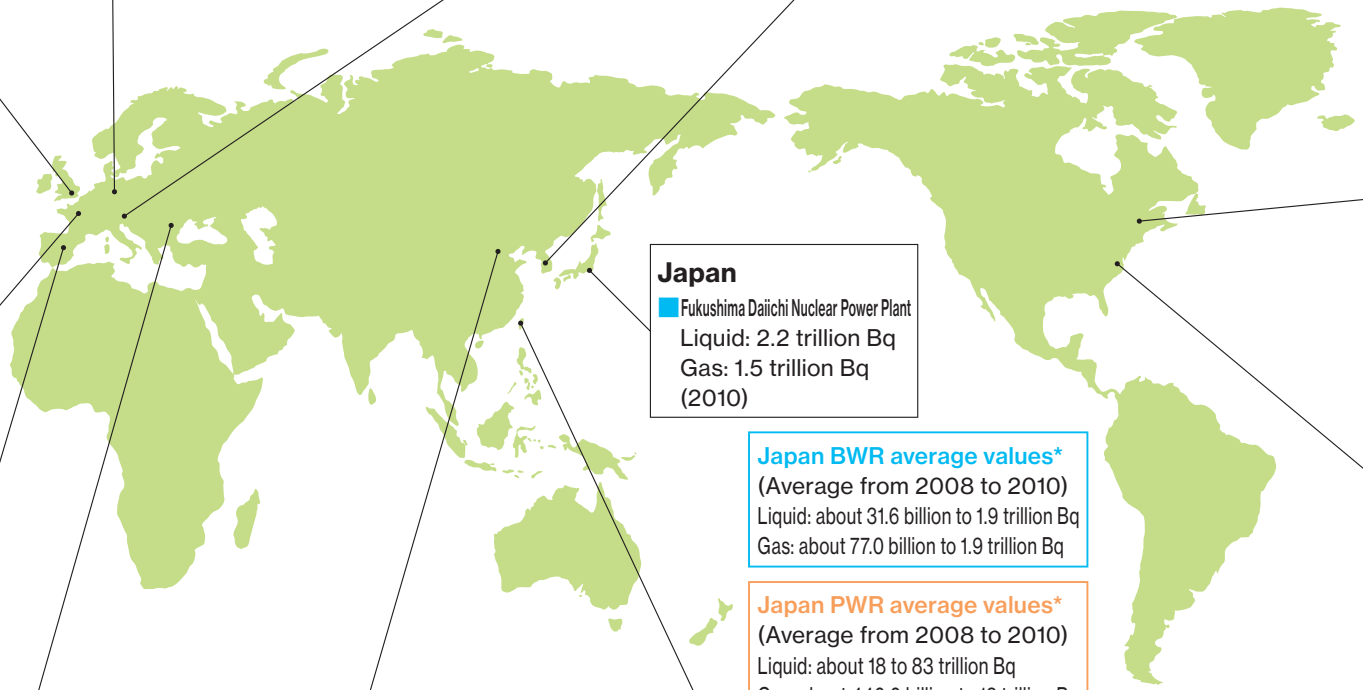
Worldwide Yearly Tritium Emissions from Nuclear Power Plants and Other Facilities



U.K.

- Heysham B Nuclear Power Station
  Liquid: 323 trillion Bq
  Gas: 1.2 trillion Bq
  (2020)
- Sellafield Reprocessing Plant
  Liquid: 186 trillion Bq
  Gas: 38 trillion Bq
  (2020))
- Sizewell B Nuclear Power Station
  Liquid: 23 trillion Bq
  Gas: 0.7 trillion Bq
  (2020)

Germany

- Gundremmingen B-C Nuclear Power Plant
  Liquid: 1.1 trillion Bq
  Gas: 0.2 trillion Bq
  (2021)

Slovenia

- Krško Nuclear Power Plant
  Liquid: 16 trillion Bq
  (2021)

South Korea

- Wolseong Nuclear Power Plant
  Liquid: 71 trillion Bq
  Gas: 92 trillion Bq
  (2021)
- Kori Nuclear Power Plant
  Liquid: 49 trillion Bq
  Gas: 21 trillion Bq
  (2021)

Canada

- Bruce A and B Nuclear Generating Station
  Liquid: 1,190 trillion Bq
  Gas: 1,230 trillion Bq
  (2021)
- Darlington Nuclear Generating Station
  Liquid: 190 trillion Bq
  Gas: 260 trillion Bq
  (2021)
- Pickering 1-4 Nuclear Generating Station
  Liquid: 480 trillion Bq
  Gas: 520 trillion Bq
  (2021)

France

- La Hague Nuclear Fuel Reprocessing Plant
  Liquid: 10,000 trillion Bq
  Gas: 54 trillion Bq
  (2021))
- Tricastin Nuclear Power Plant
  Liquid: 42 trillion Bq
  Gas: 1.4 trillion Bq
  (2021)

Japan

- Fukushima Daiichi Nuclear Power Plant
  Liquid: 2.2 trillion Bq
  Gas: 1.5 trillion Bq
  (2010)

Japan BWR average values*
(Average from 2008 to 2010)
Liquid: about 31.6 billion to 1.9 trillion Bq
Gas: about 77.0 billion to 1.9 trillion Bq

Japan PWR average values*
(Average from 2008 to 2010)
Liquid: about 18 to 83 trillion Bq
Gas: about 440.0 billion to 13 trillion Bq

U.S.A.

- Diablo Canyon 1 and 2 Power Plant
  Liquid: 40 trillion Bq
  Gas: 1.3 trillion Bq
  (2021)
- Grand Gulf Nuclear Station
  Liquid: 0.7 trillion Bq
  Gas: 0.7 trillion Bq
  (2021)
- Brunswick 1 and 2 Nuclear Plant
  Liquid: 2.7 trillion Bq
  Gas: 3.3 trillion Bq
  (2021)

Spain

- Ascó 1 Nuclear Power Plant
  Liquid: 25 trillion Bq
  Gas: 0.8 trillion Bq
  (2021)
- Cofrentes Nuclear Power Plant
  Liquid: 0.6 trillion Bq
  Gas: 0.5 trillion Bq
  (2021)

China

- Ningde Nuclear Power Plant
  Liquid: 102 trillion Bq
  Gas: 1.6 trillion Bq
  (2021)
- Hongyanhe Nuclear Power Plant
  Liquid: 90 trillion Bq
  Gas: 2.3 trillion Bq
  (2021)
- Yangjiang Nuclear Power Station
  Liquid: 112 trillion Bq
  Gas: 1.8 trillion Bq
  (2021)
- Qinshan No. 3 Nuclear Power Plant
  Liquid: 143 trillion Bq
  Gas: 108 trillion Bq
  (2020)

Taiwan

- Maanshan Nuclear Power Plant
  Liquid: 35 trillion Bq
  Gas: 11 trillion Bq
  (2021)

Romania

- Cernavodă 1 Nuclear Power Plant
  Liquid: 130 trillion Bq
  Gas: 235 trillion Bq
  (2021)

BWR (Boiling Water Reactor) or ABWR (Advanced Boiling Water Reactor)	Reprocessing facility
PWR (Pressurized Water Reactor)	CANDO (Canadian heavy water reactor) or HWR (Heavy Water Reactor)
AGR (Advanced Gas-cooled Reactor)	

*Numbers within boxes indicate amounts of tritium emissions

*Average values of BWR and average values of PWR for Japan: calculated from the average values of emission amounts from 2008 to 2010 for each nuclear power plant within Japan (per site), and those minimum and maximum values are shown

Reference: 1 trillion becquerels ≈ about 0.019 g (tritiated water conversion calculation)

Sources: England: Radioactivity in Food and the Environment, 2021
Canada: CNSC, Radionuclide Release Datasets
Other countries and regions: created from power generation companies' report documents

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