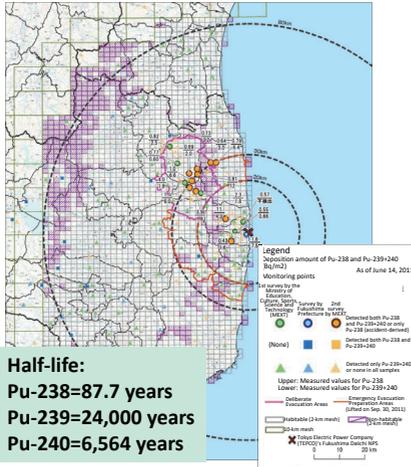


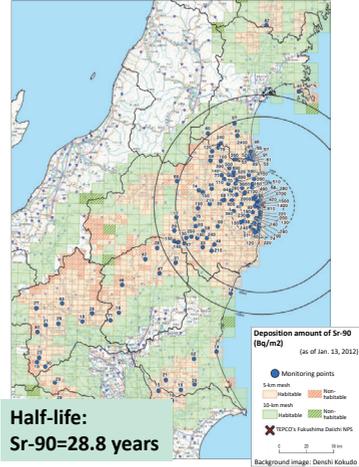
Plutonium and Strontium (Eastern Part of Fukushima Prefecture, Wider Areas)

Deposition Amount of Pu-238 and Pu-239+240 (as of June 14, 2011)



Bq/m²: becquerels per square meter

Deposition Amount of Sr-90 (as of Jan. 13, 2012)



Left: Released by MEXT on Aug. 21, 2012 (partially corrected on July 1, 2013)
Right: Released by MEXT on Sep. 12, 2012 (partially corrected on Sep. 19, 2012 and July 1, 2013)

In the soil surveys conducted by the national government in June 2011 and January 2012, soil samples were collected within the 100-km zone of TEPCO's Fukushima Daiichi NPS and in the western part of Fukushima Prefecture outside this zone.

The amounts of deposited Pu-238 and Pu-239+240 detected in the surveys were found to be within their ranges in past measurements conducted from FY1999 to FY2009, before the accident, covering the whole nation. It means that the amounts were within the fluctuations due to past nuclear bomb tests in the atmosphere, except for the amount of Pu-238 detected in a sample collected at one location (p.176 of Vol. 1, "Effects of Nuclear Test Fallout (Japan)").

The amount of Pu-238 detected in a sample collected at one location exceeded the maximum deposition amount before the accident. It was around 1.4 times the maximum level before the accident. Based on the distribution of ratios between deposited Pu-238 and Pu-239+240 measured nationwide for 11 years from FY1999 to FY2009, locations where the ratios between Pu-238 and Pu-239+240 measured in the current surveys exceeded 0.053 were marked with \bigcirc on the map. They are considered to be locations where the increased deposition amounts of Pu-238 and Pu-239+240 are highly likely to be attributable to the accident at TEPCO's Fukushima Daiichi NPS.

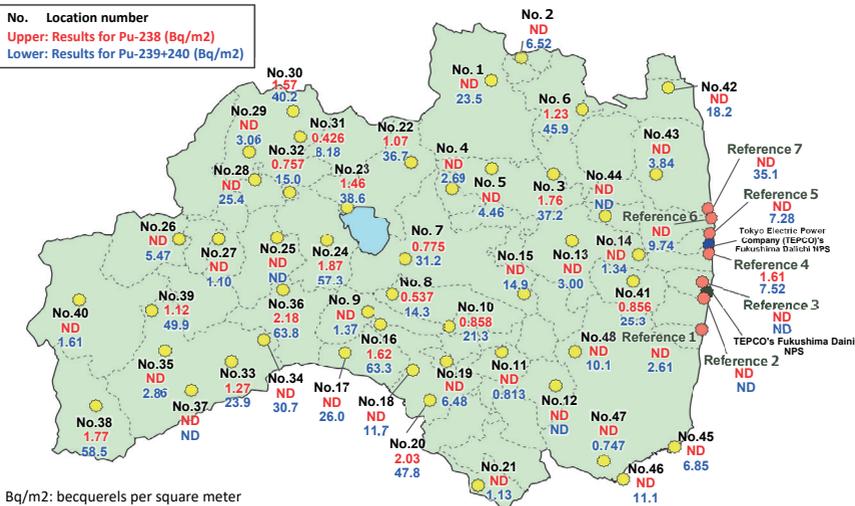
Sr-90 was also detected in the current surveys, but measured values for all samples were within the fluctuations due to past nuclear tests in the atmosphere in comparison with the readings of the nationwide measurements conducted from FY1999 to FY2009 before the accident at TEPCO's Fukushima Daiichi NPS. It was also confirmed that the deposition amounts of detected Sr-90 were around one-thousandth of those of Cs-137 at many of the monitoring points in the current surveys. Only occasionally, the deposition amounts of Sr-90 showed some fluctuations, being around one-tenth of those of Cs-137.

Included in this reference material on March 31, 2013
Updated on February 28, 2018

Plutonium (Fukushima Prefecture)

Analysis Results for Pu-238 and Pu-239+240 (Soil)

No. Location number
Upper: Results for Pu-238 (Bq/m²)
Lower: Results for Pu-239+240 (Bq/m²)



Prepared based on the reference material of the Local Nuclear Emergency Response Headquarters (Radioactivity Team) and the Disaster Provision Main Office of Fukushima Prefecture (Nuclear Power Team) of April 6, 2012

Based on the Plan for the Radiation Monitoring of Soil in Fukushima Prefecture, nuclide analysis for Pu-238 and Pu-239+240 was conducted for soil samples collected in Fukushima Prefecture from August 10 to October 13, 2011. Radioactive materials detected in all samples collected at monitoring points (48 locations) were within their ranges in past measurements conducted nationwide before the accident and the ratio between Pu-238 and Pu-239+240 was almost the same as the national average (0.0261) before the accident. Therefore, detected Pu-238 and Pu-239+240 in the current analysis are considered not accident-derived.

At one location (Ottozawa, Okuma Town) out of seven reference monitoring points around TEPCO's Fukushima Daiichi NPS, the ratio between detected Pu-238 and Pu-239+240 was 0.214, one digit higher than the national average (0.0261). It suggests that the location has the influence of the accident at TEPCO's Fukushima Daiichi NPS.

Included in this reference material on March 31, 2013

Updated on January 18, 2016