Radioactive cesium from Fukushima expected to reach U.S. West Coast in 5 years

Radioactive cesium leaking from the tsunami-hit Fukushima No. 1 Nuclear Power Plant is estimated to reach the West Coast of the United States in five years after its density declines considerably, according to a semi-governmental research institute.

The Japan Atomic Energy Agency (JAEA) has compiled a map predicting how cesium-137 will spread throughout the Pacific Ocean in the long term. Cesium-137, whose half life is 30 years, is one of the radioactive substances leaking from the crippled nuclear power station.

It estimates that cesium-137 from the plant will spread in the shape of an ellipse -- as far as about 4,000 kilometers off the coast of Japan -- in one year. It then predicts the substance will reach Hawaii three years later and the U.S. West Coast five years from now. However, the agency says that by that time, its density will have declined significantly.

By September, half a year after the March 11 disaster, the amount of cesium-137 will have declined to around 0.08 becquerels per liter of sea water at most, an amount estimated in the ocean in the 1950s when the sea was contaminated with radioactive substances deriving from U.S. nuclear tests.
JAEA also estimates that in seven years, the amount of cesium-137 leaking from the plant will fall to around one-tenth of the density of nuclear test-derived cesium that still remains in the ocean.

Based on these estimates, JAEA also predicted the levels of internal exposure to radiation of those who eat fish and other marine products that inhabit the sea areas where the highest levels of radiation will be detected as of April next year.

Japanese people will have an annual internal exposure to 0.0018 millisieverts on average, judging from the average amount of seafood they eat a year.

JAEA senior researcher Masanao Nakano said the amount will not pose any threat to people's health, noting that it is about 1/500 of the upper limit on individuals' annual exposure to radiation.

JAEA's prediction does not take into account the radioactive materials accumulating on the sea bottom.

The map predicting the spread of cesium-137 can be viewed by accessing the JAEA website:
http://www.jaea.go.jp/

Click here for the original Japanese story
http://mdn.mainichi.jp/mdnnews/news/20110627p2a00m0na009000c.html

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