

Study: Japan nuke radiation higher than estimated

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NEW YORK (AP) — The Fukushima nuclear disaster released twice as much of a radioactive substance into the atmosphere as Japanese authorities estimated, reaching 40 percent of the total from Chernobyl, a preliminary report says.

The estimate of much higher levels of radioactive cesium-137 comes from a worldwide network of sensors. Study author Andreas Stohl of the Norwegian Institute for Air Research says the Japanese government estimate came only from data in Japan, and that would have missed emissions blown out to sea.

In a telephone interview, Stohl said emission estimates are so imprecise that finding twice the amount of cesium isn't considered a major difference. He said some previous estimates had been higher than his.

The journal Atmospheric Chemistry and Physics posted the report online for comment, but the study has not yet completed a formal review by experts in the field or been accepted for publication.

Last summer, the Japanese government estimated that the March 11 Fukushima accident released 15,000 terabecquerels of cesium. Terabecquerels are a radiation measurement. The new report from Stohl and co-authors estimates about 36,000 terabecquerels through April 20. That's about 42 percent of the estimated release from Chernobyl, the report says.

It also says about a fifth of the cesium fell on land in Japan, while most of the rest fell into the Pacific Ocean. Only about 2 percent of the fallout came down on land outside Japan, the report concluded.

Experts have no firm projections about how many cancers could result because they're still trying to find out what doses people received. Some radiation from the accident has also been detected in Tokyo and in the United States, but experts say they expect no significant health consequences there.

Stohl also noted that his study found cesium-137 emissions dropped suddenly at the time workers started spraying water on the spent fuel pool from one of the reactors. That challenges previous thinking that the pool wasn't emitting cesium, he said.

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<http://mdn.mainichi.jp/mdnnews/national/archive/news/2011/10/28/20111028p2g00m0dm022000c.html>

Cesium-137 flow into sea 30 times greater than stated by TEPCO: report

PARIS (Kyodo) — The amount of radioactive cesium-137 that flowed into the Pacific after the start of Japan's nuclear crisis was probably nearly 30 times the amount stated by Tokyo Electric Power Co. in May, according to a recent report by a French research institute.

The Institute for Radiological Protection and Nuclear Safety said the amount of the isotope that flowed into the ocean from the Fukushima Daiichi nuclear plant between March 21 and mid-July reached an estimated 27.1 quadrillion becquerels. A quadrillion is equivalent to 1,000 trillion.

Of the amount, 82 percent had flowed into the sea by April 8, according to the study, which noted that the amount released as a result of the disaster triggered by the March 11 earthquake and tsunami was unprecedented.

The report also said the Pacific was polluted at an exceptional speed because the plant stands in a coastal area with strong currents, though it said the impact of the contamination on marine life in remote waters is likely to wane from autumn.

But the institute warned that a significant degree of pollution would remain in waters off the coast of Fukushima Prefecture, northeast of Tokyo. Radioactive cesium-137 has a half life of around 30 years.

Kyodo Press, October 29, 2011

<http://mdn.mainichi.jp/mdnnews/national/archive/news/2011/10/29/20111029p2g00m0dm016000c.html>
