

Title: Measurements of Fission-Product Wet Deposition to North America from the Fukushima Dai-ichi Incident by the National Atmospheric Deposition Program

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The National Atmospheric Deposition Program (NADP) made numerous measurements of radionuclides in wet deposition over North America immediately before and after the Fukushima Dai-ichi Nuclear Power Station incident of March 12, 2011. For the period from March 8 through April 5, 2011, wet-only precipitation samples were collected at 167 NADP sites and analyzed by the United States Geological Survey using gamma spectrometry. Samples consisted of both whole-water and filterable solid samples.

Variable amounts of ¹³¹I, ¹³⁴Cs, or ¹³⁷Cs were measured at approximately 21% of sampled NADP sites distributed widely across the contiguous United States and Alaska. Calculated 1- to 2-week individual radionuclide deposition fluxes ranged from 0.47 to 5100 Becquerels per square meter during the sampling period. Wet-deposition estimates are small compared to measured activity already present in U.S. soil. The results are illustrated and interpreted in: *Environ. Sci. Technol.*, 2012, 46 (5), pp 2574–2582, doi: 10.1021/es203217u, February 22, 2012.

NADP and USGS responded to the incident, and provided scientifically valid measurements that are comparable and complementary to other networks in North America and Europe. Many researchers use NADP samples to measure atmospheric deposition of different constituents. NADP samples could be used for routine monitoring of radionuclides in precipitation.