

# No threat from Japanese radiation spread across US

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(AP) -- Traces of radioactive material from the endangered Japanese nuclear plant are being detected from coast to coast in the United States and in Iceland, but amounts continue to be far below levels that would cause health problems.

The development of super-sensitive equipment to detect radiation is both a blessing and a curse, allowing scientists to monitor materials released in nuclear accidents, but also causing unnecessary worry, said Kathryn Higley, director of the nuclear engineering and radiation health physics at Oregon State University.

Traces of [radioactive cesium](#) and iodine are being reported from Nevada to Vermont, South Carolina to Massachusetts, thanks to equipment that Higley says can detect material "many orders of magnitude below what would be hazardous."

The traces of radiation outside of Japan are "absolutely of no concern," added Ahmed Hassanein, head of nuclear engineering at the Purdue School of [Nuclear Engineering](#).

Curiously, one spot where extremely small amounts of the radioactive isotopes were detected was Las Vegas' Atomic Testing Museum, about 65 miles from the desert site where the United States tested atomic bombs in the 1950s.

Ted Hartwell, manager of environmental monitoring at the Desert

Research Institute, said he's certain the isotopes came from Japan because they're not usually detected in Nevada. But he said the readings were far below levels that could pose any health risks.

Gerhard Wotawa of Austria's Central Institute for Meteorology and Geodynamics, said the amounts of radiation detected so far were a fraction of what people are normally exposed to, adding that doctors, pilots and others are often confronted with much higher concentrations.

He also said that several types of material flung into the air at the Chernobyl plant 25 years ago are not turning up in the aftermath of the Fukushima accident because there has been no explosion to propel these heavier elements in the atmosphere.

Graham Andrew, a senior aide to International Atomic Energy Agency chief Yukiya Amano, said it was too early to compare Chernobyl and Fukushima, but also suggested that to some degree the two accidents are like comparing apples and oranges.

"In the case of Chernobyl there was a large graphite fire that lifted radioactivity to high altitudes and spread it over large distances," he said. "To the best of my knowledge, there has not been that process in the case of Fukushima."

Highly sensitive equipment to detect radiation was first developed to make sure countries were observing the nuclear test ban treaty, Higley explained, and more recently there has been a focus on preventing terrorism.

In addition, she noted, iodine-131 is often used in medical treatments, meaning it may be released around manufacturing plants and also in wastewater from hospitals where people undergo treatment. Indeed, she noted, radiation detectors are scattered around her university and at

others where researchers work with radioactive isotopes.

Recent increases in levels of iodine and cesium are being attributed to the Japan release because of the timing and tracking of winds from the region. Southern utility companies on Monday said air monitors at power plants in Florida and South Carolina had detected iodine-131, which they concluded was coming from Japan.

Unlike Chernobyl when the isotopes were blasted high into the stratosphere where it could spread quickly, the radiation from Japan has remained in the lower atmosphere, noted Ross J. Salawitch, a University of Maryland researcher who has been tracking the plume from Japan.

Jeffrey Stehr, an atmospheric research scientist at the University of Maryland, said that while the radiation from Japan has been widely detected, it could take as much as a year to spread throughout the Northern Hemisphere. It could take another year before it is widespread in the Southern Hemisphere because of blocking at the equator caused by rising air currents where winds from north and south collide.

While memories of the Chernobyl disaster in what is now Ukraine have raised concerns, the amounts of radioactive material released in Japan have been much less than at that event., said William H. Miller, a professor at the University of Missouri Research Reactor.

As much as 5 percent of the core at Chernobyl went directly into the atmosphere, Miller explained, while that has not occurred at Fukushima.

"This is not anywhere close to Chernobyl," said Miller.

In its study of Chernobyl, the United Nations Scientific Committee on the Effects of Atomic [Radiation](#) noted that in that disaster large quantities of radioactive substances were released into the air for about

10 days as the reactor burned.

"The radioactive cloud dispersed over the entire Northern Hemisphere, and deposited substantial amounts of radioactive material over large areas of the former Soviet Union and some other countries in Europe," contaminating land and water, the report said.

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