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Local News

Milk radiation levels declining

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Data released Wednesday morning by the Environmental Protection Agency reveal that radiation levels found in Big Isle milk have dropped by more than half.

The minute traces of radiation discovered this month in Hilo dairy samples have been far below levels that could pose a health risk, said Lynn Nakasone, administrator of the Hawaii Department of Health's Environmental Health Services Division.

The most recent milk sample, which was collected on April 13, "supports what we're seeing with our air sampling," Nakasone said Wednesday.

"The last two air samples we took were nondetectable," she said, meaning that no radiation could be measured. "It indicates that the amount of radioactive particulate matter in the air is at nondetectable levels."

While recent rainwater and air samples show that the state is no longer receiving measurable fallout from last month's explosions at Japan's Fukushima Dai-ichi nuclear power plant, milk contains trace amounts because the radioactive elements have not yet dissipated from the dairy cows.

"It takes a little while longer for amounts to show in the cows because it has to work its way through their bodies," Nakasone said.

The test results for the April 13 milk samples were posted Wednesday on the EPA's website after being sent to the mainland for analysis.

The milk contained no radioactive iodine-131 isotopes and a combined total of 21 picocuries per liter of longer-lived cesium isotopes, including 11 picocuries of cesium-134 and 10 picocuries of cesium-137. Cesium has a half life of up to 30 years, while iodine has a half life of eight days.

Milk samples taken April 4 contained 18 picocuries per liter of iodine-131, and a combined total of 43 picocuries per liter of cesium, including 24 picocuries of cesium-134 and 19 picocuries of cesium-137.

The same radioactive isotopes have been measured to varying degrees around the country as fallout has traveled across the globe via air currents.

Despite the recent drop in Hawaii's radiation exposure, Hilo's milk radiation levels remain the largest measured in the U.S.

Even so, those levels continue to be far below the EPA's and DOH's "action levels," which would necessitate action such as shutting down Hawaii dairies and removing their products from market shelves.

The action level -- or derived intervention level, as it is called by the federal Food and Drug Administration -- is 4,700 picocuries per liter for milk tainted with iodine-131.

Meanwhile, the DIL for cesium isotopes in milk is even higher -- 33,000 picocuries per liter, or 1,571 times isle milk's most recently measured levels.

The milk samples were taken from one of the state's two remaining dairy farms, both located on the Big Island. Health Department officials declined to identify which farm provided the samples, but said that milk from the farm which was not tested would likely contain similar levels of radiation.

Nakasone said she could not be sure when the EPA will take new samples.

"Milk is routinely sampled, although the next routine sampling is scheduled for July," she said.

With the declining levels in milk and the lack of detectable radiation in rainwater and air, Nakasone said the increased rate of sampling in the U.S. in response to the Japanese disaster could be slowing down. But, she said, "if there's additional explosions (in Japan) or a major fire, then all bets are off and we'll start all over again."