

The Scent Buster: Fargo scientist sniffs out landfill issues

June 4 2016, by Dave Kolpack

Jane Kangas has the most valuable nostrils in North Dakota.

The environmental scientist's state-certified nose gives her the ability to decipher whether a landfill is meeting standards for [odor](#) control—needing just a whiff or two to determine whether it has reached peak reek. Her verification: a device that records the level of odor.

Kangas conducts odor inspections for 25 landfills in eastern North Dakota, none more scrutinized than the one in Fargo, the state's largest city. Several years ago, complaints about the stench from the dumping ground were so common, the city received criticism from people who worked in a horse park with a 400-stall barn. The city has since cut down on the funk by installing wells to mine the methane gas and turn it into electricity.

Even so, rising summer temperatures make more people bitter about the litter.

"My job is very interesting because we talk to the public on a daily basis," said Kangas, who inspects the Fargo landfill at least once a week. "The odor part is such a small part of my job. I enjoy my job, so to go on an odor complaint, it doesn't bother me."

To make sure her olfactory senses stay sharp—"The older I get, the tougher it gets," said the 21-year veteran of the health department—she is required to annually attend odor school, where she is tested on a

variety of scents.

The tool Kangas uses is called the Nasal Ranger, which looks like a radar gun with a nasal mask on one end. It is used to test everything from landfill smells to second-hand marijuana smoke in Colorado, where environmental officials have been trained to sniff out weed.

The device was designed by St. Croix Sensory, a consulting business in Minnesota's Twin Cities that's run by Chuck McGinley, an environmental engineer who has trained odor inspectors since the 1980s.

"We train up to several hundred inspectors a year, including people around the country and around the world," McGinley said. "The training is pretty basic. We train people to describe smell and to measure smell in the ambient air. Most people are trainable."

The Nasal Ranger measures aromas in odor concentration units, which essentially is the odor compared to clean air. Anything over seven units is a violation according to North Dakota law enacted in 1999 after a series of pungent debates in the Legislature.

The worst reading for Kangas—who also protects the public from asbestos, mold, lead and radon hazards, though not with her nose—was a snort of 31 units at a now-defunct ethanol plant near the northeastern North Dakota town of Grafton.

"At 31, you are about dropping over," she said. "It was a case where you would take the readings, shove Kleenex up your nose and run away."

McGinley said each community has different expectations about an acceptable level of smell, what should be done about it and how much money should be spent to fix it.

"Odor is not like a speed limit," McGinley said. "It's more like observing and recording a habit of driving politely in the community."

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Citation: The Scent Buster: Fargo scientist sniffs out landfill issues (2016, June 4) retrieved 26 April 2024 from <https://phys.org/news/2016-06-scent-buster-fargo-scientist-landfill.html>

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