

## [Residents still trying to understand Camp Fire contamination at standing homes](#)

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PARADISE — A stale chemical smell hangs in Lisa Kasza’s garage in lower Paradise. Piles of toys, books and other possessions covered in a thin layer of dust wait to be thrown out.

Nine months ago, the Camp Fire burned all the trees, bushes and grasses right up to her home, melted her sprinklers and outdoor water pipes, shattered a couple windows and sent char onto the carpet and wood floors and inside the walls.

Though her home survived, Kasza is far from feeling like she has recovered, she said. She is one of the many owners of standing homes in the Camp Fire areas who are still working out the details of their partial loss claims with their insurance companies.

One hurdle has been getting a good understanding of the extent of possible health risks from the smoke and ash that soaked into the homes that day and the following months. There are no industry-wide recognized standards specifically regarding contamination from urban wildfire smoke and ash in homes. So in the Camp Fire areas, insurance companies and environmental health professionals have taken a sometimes uneven approach, leaving homeowners to compare notes and request the clean-up they want.

“A lot of it is unknown, but that shouldn’t mean, ‘We think it’s OK,’” said Kasza. “If someone can tell me it’s harmless, I can move forward. But if it’s going to make me sick, I don’t want that.”

Kasza has been particularly concerned because she has a sensitivity to chemicals. She’s been avoiding toxins for the past ten years. When she visits her property, she wears an N95 respirator mask because she can’t stand the smell.

It’s mostly people who are already at-risk like Kasza who should be concerned about lasting contamination in standing homes, said Anthony Wexler, the director of the air quality research center at UC Davis.

“For people of normal health, the stuff that’s leaked into the home is probably not a big issue. But that’s just the smoke,” he said. “The other concern I have is people tracking a bunch of ash into the house, and

the ash is pretty toxic stuff, or can be toxic stuff.”

The smallest of particles that result from a fire, known as PM 2.5, can worsen respiratory problems and have been linked to an increased risk of heart attacks. Added to that are toxins produced by the burning of cars, plastics and other household chemicals on Nov. 8. Most of the toxic gases contained in the ash have mostly volatilized by now, Wexler said, but breathing in the particles can still be a danger to the health of some people. He recommended people take care not to bring any ash from outside into the home.

The unprecedented nature of the Camp Fire has posed a challenge to those assessing standing structures and making recommendations for clean-up. There are no widespread standard or consensus documents regarding this particular type of exposure, although some are in the works, said Michelle Rosales, a Southern California-based certified industrial hygienist at Forensic Analytical Consulting Services Inc.

“When things are new, it becomes the Wild Wild West, in terms of how to interpret stuff and make sense of things,” said Rosales. “The last couple of years have really been a game-changer.”

She co-wrote a technical guide last year for others in her field about urban wildfires. Among other guidance, the guide recommends procedures for sampling dust for particles small enough they would not be caught by a visual inspection.

“What we evaluated before was just whatever smoke driven stuff was in homes, but now it’s more involved and expensive than that,” said Rosales. “There’s a lot of factors generally based on level of impact.”

Each structure in the Camp Fire area has a different story. Some had little to no damage and have been cleaned up to the owners’ satisfaction. Some had so many toxins they are considered unsafe to live or work in long-term.

Tom Thompson, the vice president of environmental engineering firm HTA Science & Engineering, Inc., said that he’s identified polycyclic aromatic hydrocarbons (a common byproduct of fires), heavy metals and lots of ash, char and soot in the dozens of homes he’s reviewed in the Camp Fire footprint. One of the homes he worked in had to be cleaned three times because of constant exposure to ash, he said. He also assessed Kasza’s home.

The report for the home shows that the only chemical detected in laboratory-tested samples was ethanol, at a level far below the limit. The firm found char, a combustion by-product visible to the naked eye, on carpets and inside the wall cavities. Kasza is now asking her insurance company, Farmers Insurance, to cover the cost of replacing the insulation and other items that are hard to clean in addition to what it is paying already for the basic cleaning of the carpet. Farmers did not respond to a request for comment).

The back-and-forth with insurance companies is not uncommon, said Emily Hogan, of United Policy Holders, a non-profit that advocates for policyholders in the wake of disasters.

“The main thing is that no matter what the cause is, they have to do a thorough inspection,” said Hogan. “If the homeowner is not happy with the inspection that was done, it’s important to create the paper trail. Being a pain in the side makes the difference, which is sad because no one has the time or the will to really fight back.”

Kasza doesn’t want to go home to a place that could make her sick, despite her insurance company’s decision to not cover alternative living expenses any more.

“It’s just overwhelming,” said Kasza. “I’m going to have to get back into the fighting mode, and I will.”