

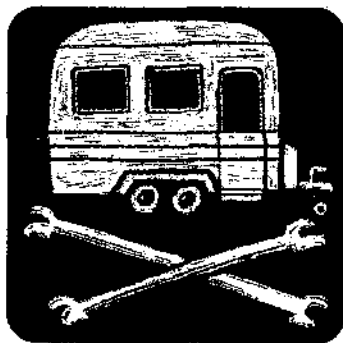
KATRINA SURVIVORS ARE FINDING NEW HEALTH PERILS IN THEIR FEMA-SUPPLIED TRAILERS.

Dying for a Home

AMANDA SPAKE

Along the Gulf Coast, in the towns and fishing villages from New Orleans to Mobile, survivors of Hurricane Katrina are suffering from a constellation of similar health problems. They wake up wheezing, coughing and gasping for breath. Their eyes burn; their heads ache; they feel tired, lethargic. Nosebleeds are common, as are sinus infections and asthma attacks. Children and seniors are most severely afflicted, but no one is immune.

There's one other similarity: The people suffering from these illnesses live in trailers supplied by the Federal Emergency Management Administration.



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An estimated 275,000 Americans are living in more than 102,000 travel trailers and mobile homes that FEMA purchased after Hurricane Katrina. The price tag for the trailers was more than \$2.6 billion, according to FEMA. Despite their cost of about \$15,000 each, most are camperlike units, designed for overnight stays. Even if the best materials had been used in their construction—and that is a point of debate—they would not be appropriate for full-time living, according to experts on mobile homes. The interiors are fabricated from composite wood, particle board and other materials that emit formaldehyde, a common but toxic chemical.

“Formaldehyde is a very powerful irritant,” says Mary DeVany, an industrial hygienist in Vancouver, Washington. “When you inhale the vapors...the breathing passages close off.” The Inter-

national Agency for Research on Cancer has classified formaldehyde as a human carcinogen. The Environmental Protection Agency has said that more than 0.1 parts per million of formaldehyde in air can cause eye, lung and nose irritation. Few scientists dispute the chemical's power to worsen respiratory health. Yet there is no federal standard for formaldehyde in indoor air, or for travel trailers, and no consensus on whether any "safe" level exists.

Last summer FEMA began distributing a leaflet to trailer residents explaining that the materials used in the interiors can release toxic vapors. The agency suggests residents keep windows and doors open and the air conditioner on, yet reduce heat and humidity. (The Gulf's hot, humid climate increases the rate at which materials release formaldehyde.)

FEMA has not responded to requests for the total number of complaints it has received about formaldehyde — some media reports put the number at forty-six. The agency does say that seventeen trailers in Louisiana had to be replaced because of the chemical.

Many residents suffering from symptoms, however, are afraid to complain to FEMA, fearing the agency will take away the only housing they can afford. It was complaints of respiratory problems to the Sierra Club that led the organization to test fifty-two FEMA trailers last April, June and July. Some 83 percent of the thirteen different types tested had formaldehyde in the indoor air at levels above the EPA recommended limit.

Air sampling by the Occupational Safety and Health Administration at holding stations where groups of trailers were kept before they were set up revealed high formaldehyde levels even in outdoor air. At the holding station in Pass Christian, Mississippi, formaldehyde in outdoor air was thirty to fifty times the level recommended by the EPA, and several times OSHA's workplace standard.

One of the first to notice an unusual number of illnesses among trailer residents was pediatrician Scott Needle of Bay St. Louis, Mississippi. "I was seeing kids and families coming in with repeated, prolonged respiratory illnesses—sinus infections, lingering coughs, viral infections that didn't go away," Needle says. The mothers told him that their children had never been sick like this before. Some of the infants had to be hospitalized. "Over the course of three months, I saw several dozen families with these health problems. That's really high, and this isn't something I'd seen in my practice before. All of them were living in FEMA trailers."

Angela Orcut, a preschool teacher, and her 3-year-old son, Nicholas, are typical of Needle's patients. "Ever since we've lived in this trailer, Nickie wakes up every morning choking and coughing," Orcut says. "He's had so many sinus infections since we moved in here." At night, when the family returns to the closed-up trailer, "the smell burns our noses and our eyes," she says.

Like many trailer residents, Orcut has not filed a complaint with FEMA. "I'm afraid if I complain, they'll take the trailer away," she says. "Then where will we live?"

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Paul and Melody Stewart have a similar story to tell about their health problems, which began shortly after moving into a FEMA trailer at the site of their storm-ravaged house. "When we got here, it smelled bad," says Paul, a former Waveland, Mississippi, policeman. Melody woke up the first night they stayed in the trailer, gasping for air. "Within a week," he says, "we both had nosebleeds."

One morning the Stewarts found their cherished pet cockatiel lethargic and unable to stand. They rushed the bird to the vet, who said the cockatiel would die if he were kept in the trailer. Stewart began doing research and discovered that the wood products used to make cabinets, walls and other interior parts could emit formaldehyde, especially in hot, humid climates.

He bought a testing kit for airborne contaminants and sent it back for analysis. In winter, with windows open and the air conditioner on, the test showed, the formaldehyde level in the Stewarts' trailer was more than two times the

EPA's limit. Still, FEMA refused to replace the trailer until a story about the Stewarts' formaldehyde problems ran on the local television news. FEMA called the next day to say they were bringing a new trailer.

When the new trailer arrived, the couple could smell formaldehyde before they opened the door. Another was delivered with mold covering the walls. The Stewarts lived in their truck until they took what remained of their insurance settlement and their retirement savings to buy a new trailer at a dealer's lot. This one was made with low-formaldehyde-emitting materials. Their respiratory problems are gone, but plans to rebuild their home are on hold.

Hilda Nelson, 75, of Coden, Alabama, was not as lucky as the Stewarts. When she moved into a FEMA trailer at the site of her former house, she was in good health, says her son, Paul. Three weeks later, he says, "she was having trouble breathing." Not long after, she was diagnosed with pneumonia, then congestive heart failure, a chronic illness that can cause breathing difficulties.

In June 2006 Paul Nelson ordered a kit to test his mother's trailer for formaldehyde. The results showed the level of the chemical inside her trailer was 50 percent over the EPA's recommended limit.

Scientists familiar with toxics agree that elderly people, like infants, are highly susceptible to the hazards of formaldehyde, particularly if they have underlying illnesses. "We started testing in Alabama," explains Becky Gillette, co-chair of the Mississippi Sierra Club, "because we got reports from social workers there that so many elderly people living in the trailers were being hospitalized for respiratory conditions. And many of them were dying."

In October 2006, at the age of 76, Hilda Nelson died, one year and one month after moving into her FEMA trailer. Doctors "never had an answer" as to why her health deteriorated so quickly, says her son. "But I have my suspicions. I point the finger at the formaldehyde."

When Katrina hit, the federal government had standing contracts with a number of companies to provide goods and services during natural disasters, including firms that manufacture, haul, set up and maintain temporary housing. Given the unprecedented number of people displaced by Katrina, FEMA contracted with the major trailer makers, such as Gulf Stream Coach, Fleetwood Enterprises, Monaco Coach and others, to provide more than 100,000 travel trailers. Only 14,000 of them were standard trailers, purchased "off the lot" from retail dealers.

The majority were stripped-down models, described as "no frills units" by the marketing director of Gulf Stream, which landed a \$521 million contract to make 50,000 trailers for FEMA. "We gave them the time schedule to produce the trailers," explains James McIntyre, a FEMA spokesperson. "They hired new staff or whatever they needed to do to meet the schedule."

Trailer manufacturers set up ad hoc assembly lines, advertised in local newspapers and hired temporary workers to fill FEMA orders at breakneck speed. On some assembly lines, workers say, they were expected to produce a trailer in eight to ten minutes. Twelve-hour shifts and six-day workweeks were common. "Under the best of conditions, some trailer manufacturers do not really have good quality control," says Connie Gallant, president of the RV Consumer Group, a nonprofit that rates the quality of mobile housing and trailers. "In a mass production frenzy, that quality control pretty much goes out the window."

One critical quality-control question concerns the construction materials used in the trailers. Many American composite wood and particle-board makers produce low-formaldehyde-emitting materials. In Indiana, where Gulf Stream and a number of other trailer firms are located, companies were scrambling to find enough construction materials. Scientists and housing experts believe that the materials used to fabricate the FEMA trailers may have been imported from countries that produce high-formaldehyde-emitting particle board and composite woods.

"The levels of formaldehyde that have been reported down there you don't see in the average American-made mobile home," says Thad Godish, a professor of environmental management at Ball State University, in Indiana. Godish, an expert on indoor air pollution, has consulted on some 350 lawsuits involving formaldehyde in mobile homes.

A class-action lawsuit was filed against FEMA and some trailer manufacturers in Louisiana in June on behalf of residents suffering from respiratory and flu-like illnesses they attribute to formaldehyde inside their trailers. Sean Trundy, an attorney for the plaintiffs, says that after he filed the lawsuit, several Indiana workers, hired temporarily by the trailer makers, contacted him. They had come down with similar illnesses while working on the trailers.

"One complained that his ears ruptured and bled. Many had nosebleeds, headaches and flu-like symptoms. Some were coughing up blood," says Trundy, who plans to call them as witnesses as the residents' case progresses. "They told me some wood

products came from Africa. The longer they continued to produce FEMA trailers, the worse the materials got. Apparently the manufacturer's regular suppliers could not keep up with demand." Trundy hired an independent testing lab in Pennsylvania to evaluate some plaintiffs' trailers. Formaldehyde levels in the living room of one were more than three times the EPA's limit, according to the lab's report. The Pennsylvania lab recommended that "residents should move from the affected dwellings until formaldehyde levels can be lowered."

Gulf Stream Coach, the firm that supplied the largest number of trailers for evacuees, did not return calls asking for comment on formaldehyde or the materials used in trailers made for FEMA. A spokesperson for Fleetwood Enterprises, one of the large trailer makers, said she could not comment on the formaldehyde issue because the lawsuit against the company is in litigation.

Keith Broom, the spokesperson for the Recreational Vehicle Industry Association, says that manufacturers have told his organization

'What is the problem with testing the trailers that people are living in?'

—pediatrician Scott Needle

that they generally use low-formaldehyde-emitting materials in trailers. "I do know that there are engineered wood products used that come from China," Broom adds, but he's not sure which were used in the FEMA trailers. Even if imported materials that release high levels of formaldehyde were used, says air expert Thad Godish, "it's perfectly legal, because there are no standards."

The Department of Housing and Urban Development has set standards to limit formaldehyde in building materials used in manufactured housing and mobile homes. But for travel trailers and recreational vehicles there is no federal standard. One reason, says the RV Consumer Group's Gallant, is that travel trailers are intended only for short trips, not full-time living. But FEMA's James McIntyre says that travel trailers "have traditionally been used in disasters for temporary housing." He adds, "Cost is one factor." A mobile home for full-time use costs in excess of \$30,000, but a travel trailer is half that, or less.

Whatever specifications FEMA may have set for trailer manufacturers regarding formaldehyde, they have not been made public. In Congressional hearings last February, Richard Skinner, the inspector general of the Department of Homeland Security, testified that some trailer contracts "did not specify minimum specifications requirements, making it possible that some trailers...had significant deficiencies." Even those made according to specifications, Skinner said, were accepted by FEMA "without any formal inspection procedures."

FEMA has now undertaken testing of its trailers. At FEMA's request, the EPA recently sampled air in ninety-six unoccupied trailers that FEMA calls comparable to those used by Katrina evacuees, and the federal Centers for Disease Control and Prevention are analyzing the results.

But Bay St. Louis pediatrician Scott Needle questions this approach. "What is the problem with testing the trailers that people are living in?" he asks. He tried to convince the Mississippi Department of Health and the CDC to do an independent study

on the illnesses. The state, he says, told him, "We don't have anyone to spare right now." The CDC agreed that such a study would be a good idea, he says, but the federal agency has to be asked to help by the state. Mississippi hasn't asked.

For its part, the Mississippi Department of Health says it "does not have statutory authority to regulate indoor air quality, including formaldehyde within travel trailers." Needle says he wasn't asking for regulation, just investigation. The department, however, says it never received his request for an investigation.

Last month FEMA agreed that those displaced by Katrina could remain in their trailers until August of this year. That's six months longer than the eighteen months mandated by federal law. No one expects this to be long enough. Very little new or affordable housing is being built on the Gulf Coast, and prices and rents for existing homes have skyrocketed because of the short supply.

Though \$388 million was awarded to five states in December

to design new model homes for use after disasters, survivors of the next storm are more likely to benefit. It seems clear that many Katrina evacuees living in FEMA trailers will be in them for months, if not years.

Democratic Representatives Henry Waxman and Charlie Melancon wrote to R. David Paulison, director of FEMA, last summer, asking about the formaldehyde-emitting materials used in the trailers and steps being taken to prevent exposure. John D'Araujo, FEMA's director of recovery, responded by describing the leaflet the agency distributes about ventilation, and noted its agreement with the EPA to test some unoccupied trailers. No test results or new recommendations have been released.

Waxman has not decided whether to hold hearings on the formaldehyde issue, but he's not giving up on it. "I remain concerned that many evacuees have been and continue to be exposed to hazardous levels of formaldehyde gas in their FEMA-issued trailers," he says. "And I hope that FEMA will be more responsive to the new Congress." ■

EXCHANGEC O N T I N U E D
