

12/13/03 - A clean sweep

Tar Creek families use special cleaners to deal with lead dust in homes

By Wally Kennedy Globe Staff Writer

PICHER, Okla. - Ellie Bruner has a job, but her real work begins when she gets home at night.

"If you live in Picher and you've got kids, you dust every day because of the lead," she said. "There's a lot of sweeping, mopping and vacuuming every day."

Bruner's adopted grandson, Caleb, was tested for lead poisoning three years ago. His test showed 15.9 microns of lead per deciliter of blood. Serious and permanent damage to a child's nervous system can occur at 10 microns per deciliter, health experts say.

The lead-contaminated soil in Bruner's yard was removed. The boy's blood-lead level fell after the yard soil was removed, but then it gradually went back up. She said she was fighting a losing battle because dust from outside was continuing to contaminate the inside of her home despite her best efforts at cleaning.

"When the winds blow around here, especially from the south to the north, you can stand outside and watch the sandstorm," she said.

Residents, caught in the 20-year cleanup battle of the Tar Creek Superfund Site, are still waiting for decisions on the future of their town.

U.S. Sen. James Inhofe, R-Okla., is proposing that \$45 million be spent on the removal of some of the chat in the area and the reclamation of damaged land on the perimeter of the site. The proposal also would seek out alternative uses for chat.

U.S. Rep. Brad Carson, D-Okla., is pushing for a buyout of the area, saying that too much money has been spent on cleanup efforts that have not been successful.

And, the U.S. Department of the Interior and two mining companies are teaming up on a multimillion-dollar study of how to get rid of the chat. The Environmental Protection Agency will use the study to select a remedy.

In the meantime, residents wait and do what they hope will work to protect their children.

Reducing blood levels

Bruner said that about a year ago, she obtained a free vacuum cleaner with a HEPA - high efficiency particulate air - filter from the Ottawa County Health Department. Her grandson's blood-lead level started falling almost immediately. On Aug. 3, his blood-lead content tested at 7.4. In an Oct. 23 test, the level had fallen to 6.1.

She attributes the decline to the HEPA filter on her vacuum.

"They are awesome," she said. "I use it every day. I do the windowsills, above the door frames, the floor and the mopboard. And, I do the kids' beds. The first place they go when they come in from outside is their bed."

"If someone here in Picher got one of these vacuum cleaners and they don't use it, they need their butts kicked."

The old canister-type vacuum she had before did a pretty good job of picking things up, but it tended to spread the dust around. The HEPA filter literally cleans the air as you use it, she said. The filter collects extremely small particles of dust.

Bruner, who also has an adopted granddaughter living with her, said the girl's blood-lead level also has fallen, from 7.5 earlier this year to 5.0 in October.

"I get them tested every three months. It's something you have to do if you live here," she said. "I own my house here on the north side of Picher. I have lived here for 14 years. I want to move, but you can't sell a house here. You could, but you can't get any money out of it."

More than 150 families with small children in the Picher-Cardin area have received free vacuum cleaners from the health department. More are being given away.

Lead-contaminated dust on the hands of children increases the likelihood that they will ingest lead when they eat with their hands.

"Dust control is the thing," said Susan Waldron, who heads the lead-poisoning control program for the county health department.

"These are vacuum cleaners with special filters in them. We are giving them to families with children that had the highest blood-lead levels, and the highest risk for lead-contaminated dust and lead-based paint to be in the home."

The department gave away 120 of the vacuum cleaners earlier this year. They were in use before and during the summer season, when household windows are more likely to be open and when children are more likely to be playing outside.

"After three or four months of use, we found that more than half of the children had reduced blood-lead levels," Waldron said. "Those results are very encouraging, but preliminary. The results have not been looked at by the state epidemiologist."

The cleaners cost \$175 each. The money was provided by the federal Agency for Toxic Substances and Disease Registry, a branch of the Centers for Disease Control and Prevention.

'Another piece of the puzzle'

Waldron said she does not know whether the widespread use of vacuum cleaners to control dust has been tried at other Superfund sites. Vacuum cleaners with HEPA filters have been used by other health departments in the region, but not at the degree to which they are being used in the Picher-Cardin area.

The success of the project has produced funding for the purchase of 200 additional vacuum cleaners. The department gave out 34 of them on Nov. 18 to some families with small children in the Picher-Cardin area. A second giveaway will be held from 1 to 6 p.m. Tuesday at the Senior Citizens Center in Quapaw.

"Lead-based dust is what gets on the hands of the kids," Waldron said. "Some families cannot afford a decent vacuum cleaner. When they vacuum, they just put the dust back into the air."

Waldron said she researched vacuum cleaners to find a model with a washable HEPA filter. She found one in which the filter will last for up to two years.

"One thing the parents like about this idea is that they can control a part of their child's environment," she said. "We offered a class for the parents about the proper use and maintenance of these cleaners.

"It's another piece of the puzzle. Right now it looks pretty good, but only time will tell."

The source of the lead in the homes is not clear, although a recent study by the University of Oklahoma showed that dust from mill ponds and chat piles in the area could be contaminating homes and residential yards in the Picher-Cardin area.

"One study showed that a cleaned home in Picher was recontaminated within a matter of hours by dust circulating in the air," Waldron said. "So, where is it coming from? It could be coming into the homes on clothing and pets. Many of the homes in Picher are not among the most airtight of homes."

Reducing exposure

John Neuberger, with the department of preventive medicine and public health at the University of Kansas School of Medicine, has called for year-round air monitoring in Picher to determine the degree and source of the lead-contaminated dust.

Neuberger, who has been hired as a health adviser to provide technical assistance to a local residents' group, said: "We still need to find out where it is coming from. Is it from paint in the houses or external sources?"

The Quapaw Tribe, in cooperation with the EPA, has started an air-monitoring program in the Picher area, where much of the land is owned by tribal members.

Tony Moehr, director of the Jasper County (Mo.) Health Department, said his department's program for lead abatement in homes uses two vacuum cleaners with HEPA filters.

"We loan them the vacuum cleaners," he said. "When we find a child with elevated blood lead, we do a variety of things. We counsel them on how to clean properly. That is wet cleaning and HEPA cleaning. We give them cleaning supplies and solutions, and show them how to use them.

"If someone is remodeling a house and they have created a lot of dust, they can borrow one of our vacuums to clean the mess up before the kids go back into the house.

"Anything to reduce the amount of dust that a child gets into their body will reduce their exposure overall. Dust is the major contributing factor. You can argue where the dust comes from, but it is exposure to dust that is the problem."