

Lake Family Resource Center's Clearlake facility closes due to geothermal gas issue

Elizabeth Larson, Lake County News, 8-31-11

CLEARLAKE, Calif. – Lake Family Resource Center has vacated its Clearlake facility after venting geothermal gases led to concerns about potential health hazards.

Gloria Flaherty, the center's executive director, said they are moving out of the 2,400-square-foot building, located at 14264 Austin Road, at the suggestion of local health officials.

She said the center was notified that they were probably going to have to move out on Thursday, Aug. 18. “And we did move out that afternoon.”

Lake County Health Officer Dr. Karen Tait said county health agencies recommended that Lake Family Resource limit use of the Clearlake building due to indoor air quality concerns related to the geothermal gas.

Tait said the issue is a longstanding problem that local health officials have been evaluating, adding that it is “complex and represents new ground in the health arena in many ways.”

“Strict guidelines for long-term air quality are lacking, so we've arrived at this recommendation after a lot of research, air quality measurements and deliberation,” Tait told Lake County News.

She said Lake County Public Health has been working with agencies including Lake County Air Quality Management District, Lake County Fire and its own Environmental Health division, the Environmental Protection Agency.

Lake County Environmental Health Director Ray Ruminski said Environmental Health did not do an enforcement on the building, just offered the recommendation not to use it.

“We advised them that there's a possibility of hazardous conditions,” he said.

The facility wasn't staffed every day, said Flaherty, explaining that staff stopped in there to do paperwork. The space also had been used for therapy, workshops and parenting classes the nonprofit offers.

“It has always smelled but it's been worse the last couple of years,” Flaherty said, adding that they didn't want to take any chances due to the situation.

Tait said the venting “comes with living in volcano territory.” Local agencies were trying to determine if there are some guidelines needed to advise residents of precautions to take when living in areas where this activity is more noticeable.

She suggested that Lake Family Resource Center could mitigate the building's problem with some engineering, but Flaherty wasn't sure if the problem could be resolved, noting that a former owner tried putting in a ventilation system.

Ruminski said the venting is a “neighborhood phenomenon,” adding the area is a mixture of residential and commercial.

The venting gases appears to become more common during the rainy season than the dry season, said Ruminski. He said the venting is related to atmospheric pressure and groundwater levels, becoming more prevalent when the ground is saturated by water.

Wet conditions led to a natural hydrogen sulfide leak in February 2010 on an empty lot on Division Avenue in Clearlake, not far from the Lake Family Resource Center building. That incident required several agencies to respond and put equipment in place to diminish the strong sulfur smell, as Lake County News has reported.

When such venting occurs, there is a mixture of gases involved, said Ruminski, with carbon dioxide and methane as the major constituents. Hydrogen sulfide is found at a smaller concentration.

In a confined space or interior, if too high of a concentration of carbon dioxide builds up the oxygen concentration is lowered. "Then you can get an oxygen deficient atmosphere," he said.

Ruminski said nobody really knows what levels of those gases are safe to be exposed to on a long-term basis.

He said there are other concerns as well.

"There's a risk of fire and explosion if there's a buildup of the methane," Ruminski explained. "There's a couple different hazards to worry about with these gases."

Ruminski recalled that about 20 years ago in the same area a similar situation arose during the winter in a home. The home had so many problems that it eventually was foreclosed on and later demolished.

Because of the county's geothermal resources, Clearlake isn't the only area where such venting is found, Ruminski said.

He said there is an effort to get more resources focused on monitoring the venting issues. Last March the US Environmental Protection Agency did some field reconnaissance to study the issue.

There has not been any damage to the nonprofit's equipment, and Flaherty said Lake Family Resource Center will continue to maintain the building's exterior.

"We will probably use it for storage or something," she said.

Flaherty said the challenge now is to find a building for workshops and classes.

"We own that building outright so now we're going to have to start paying rent," she said.