

Leesburg, Florida

Health Consultation Report Summary

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In 1998, the owner of a residence near Lake Harris discovered some broken thermometers in his yard. He found the buried pieces of thermometers while installing an irrigation system. A neighbor reported finding similar pieces in his own yard. Thermometers usually use mercury, or quick silver, which can be harmful. The resident, knowing this, called the Florida Department of Environmental Protection (DEP). Florida DEP took some 23 soil samples from the yard. They found varying levels of mercury in the soil.

The primary health finding from this investigation is that the Florida Department of Health would not expect to see any health effects from the levels of mercury found at this site.

Site Background

This parcel of land, until 1992, was listed as undeveloped. In 1992 someone purchased this lot and built a home on it, selling it to the current owner in 1994. The DEP found in their investigation that a local thermometer manufacturer used to dump wastes in this area.

In October 2001, DEP asked the Florida Department of Health (DOH) to look at the sample data. DEP was concerned whether the amounts of mercury in the soil were high enough to be a public health threat.

Information About Mercury

Mercury can affect the kidneys and the central nervous system, including the brain. Breathing mercury vapors and getting mercury on the skin are the most common ways people come into contact with it.

About breathing (inhaling) mercury vapors: very small amounts of metallic mercury can raise air levels enough to be a threat to health. A thermometer holds about one-half teaspoon of mercury.

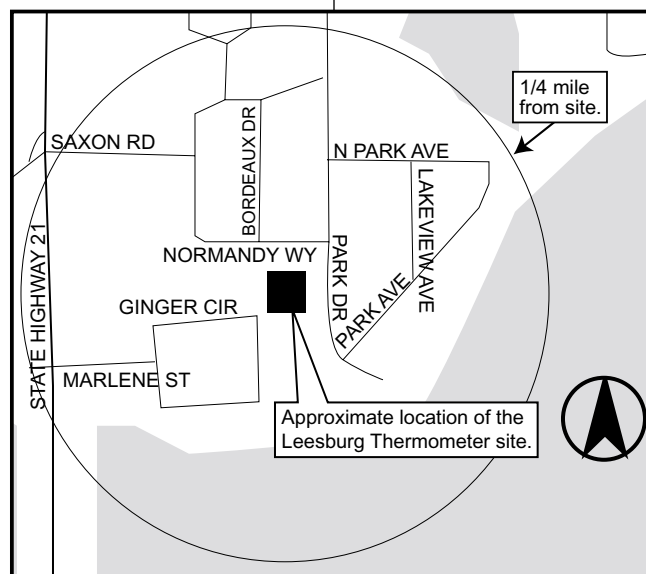
That small amount of mercury can make enough vapors to be a health threat.

Getting mercury on the skin in its liquid form creates more exposure than exposure to soil with mercury in it. Mercury breaks up in soil and binds with soil particles.

The amount of mercury spread out in soil that could actually get onto the skin if someone got contaminated soil on them would be much less than if they contacted liquid mercury.

Eating (ingesting) mercury is not as bad as inhaling it or making skin contact with it. This is because mercury usually passes through the body before much is absorbed. It would have to be absorbed to cause harm.

An additional health note: Mercury has not been found to cause cancer in humans.



DOH Methods

To be protective of health, Florida DOH uses the guideline levels for children. The guidelines are set well below levels known to cause health effects. Children are more sensitive to most chemicals than adults. It also takes less of a chemical to make a toxic dose for them. The guidelines to protect their health are below those for adults. When DOH finds they would not expect to see any health effects at these lower children's levels, it

knows adult health is also protected.

DOH Recommendations

The site has been classified as an "Indeterminate Public Health Hazard" because DOH does not know if there are other affected areas nearby. It is possible that the thermometer maker dumped other waste in the area. Because of this, Florida DOH recommends the following actions:

- Florida DEP should collect and analyze additional surface soil to see if there are any more contaminated areas.
- Florida DEP should make a special analysis for total mercury in the samples.
- If residents believe they have walked over contaminated soil, they should avoid tracking it indoors. Small amounts of mercury can release harmful vapors over time.
- If residents believe there is mercury-contaminated soil indoors, they should not attempt to vacuum it. They should not disturb the area and call Tom Atkeson, Program Coordinator for the Florida DEP Mercury Program, at (850) 921-0884.
- If areas of buried thermometers or mercury-contaminated soil are disturbed, people should avoid breathing vapors and coming into contact with it. To report disturbance of contaminated soil, people also may call Tom Atkeson at Florida DEP as above, at (850) 921-0884.

If you have any questions, you may call us at the numbers listed below.

For More Information

You may get a copy of the complete Health Consultation Report at the Lake County Public Library, 204 North Fifth Street, in Leesburg. You also may call Beth Copeland at DOH, toll free, at the number below to have one mailed to you.

What the Florida DOH and ATSDR do.

- Seek out the concerns and questions of the affected community and respond to them,
- Conduct evaluations of potential health effects, if any, at a hazardous waste site,
- Advise the public on how to protect themselves from future exposure to site chemicals,
- Inform communities of our findings and recommendations concerning the site,
- Inform the community's healthcare professionals of our findings, and give them information,
- Do biological exposure investigations, if indicated, and
- Advise cleanup and other agencies on health issues.

What the Florida DOH and ATSDR do NOT do.

- We do not make or enforce laws or rules concerning hazardous waste.
- We do not provide medical services.
- We do not provide funds for cleanup or relocating people.
- We usually do not take samples, using those taken by agencies funded to do that work.
- We do not do worker investigations.

For Health Concerns:

Beth Copeland or Shaun Crawford
Bureau of Environmental Epidemiology
Division of Environmental Health
Florida Department of Health
4052 Bald Cypress Way, Bin #A-08
Tallahassee, FL 32399-1712

(850) 245-4299 or Toll Free 1-877-798-2772

Telephones are answered during regular business hours.

For Site & Cleanup Questions:

Craig Feeney, SIS
Florida Department of Environmental Protection (DEP)
2600 Blair Stone Road
Tallahassee, FL 32399-2400
(850) 921-9993