Florida DOH Evaluates Drinking Water Wells, Homegrown Produce, Air Stripper Emissions, and Indoor Air Quality

About the Health Agencies
The Volusia County Health Department (CHD), Florida Department of Health (DOH), and the US Agency for Toxic Substances and Disease Registry (ATSDR) serve the public by using the best science, taking responsive public health actions, and providing trusted health information about toxic chemicals at hazardous waste sites.

About the Sherwood Medical (Tyco) Site
The Sherwood Medical (now Tyco) hazardous waste site, at 2010 Highway 92 in DeLand, manufactures medical grade stainless steel and aluminum parts used in disposable hypodermic syringes. Between 1971 and 1980, Sherwood released volatile organic compounds (VOCs) into the groundwater at the site. VOCs moved from the site into several private drinking water wells to the north, south, and east of the facility. The US Environmental Protection Agency (EPA) named the site to the Superfund National Priorities List (NPL) in 1982.

In 2007, residents living near the site were concerned that groundwater contamination might be getting into their private drinking water wells and could affect their health. To ensure the safety of the drinking water supply, the Florida DOH and the Volusia CHD tested 59 private drinking water wells nearest to the site. We also tested a few more wells farther away from the site. In addition, the Florida DOH tested homegrown produce, estimated levels of emissions from air strippers cleaning the site’s contaminated groundwater and tested indoor air quality in three nearby buildings.

Florida DOH/ATSDR found:
- Use of water from private drinking water wells is not a public health threat
- Eating homegrown produce irrigated with groundwater is not a public health threat
- Estimated air stripper emissions are not a public health threat
- Trichloroethene and tetrachloroethene were not found in the air of nearby homes

Drinking Water Well Report
The DOH laboratory analyzed water samples from 59 nearby private drinking water wells for VOCs and chromium (total), chemicals found in contaminated groundwater from the site. Also, because of residents’ concerns about water quality, DOH analyzed the water samples for nitrates/nitrites, iron, sulfates, manganese, total dissolved solids (tds) and bacteria.

As shared with the community at an open house in October 2007, Florida DOH found trichloroethene (TCE) in one of the 59 wells and cis-1,2-dichloroethene (cis- 1,2-DCE) in 18 of the 59 wells sampled. However, the levels were below the primary drinking water standards and are not likely to cause illness. The pattern of detection suggests the former Sherwood Medical site is the source.

In some of the tested wells, contaminants like iron or manganese were above secondary drinking water standards, but within local groundwater quality ranges and unlikely to cause illness. Florida DOH directly notified the owners the 59 tested wells about their well’s test results.
**Homegrown Produce Report**
Nearby residents were concerned about eating homegrown fruits and vegetables. Florida DOH coordinated testing some produce in a garden found near the site and analyzed the results. In June and November 2007, the Volusia CHD and the Florida Department of Agriculture and Consumer Services (DACS) collected collard greens, green beans, papayas and sweet potatoes from the garden. Florida DACS analyzed them for metals. Although Sherwood Medical used chromium onsite, DACS did not find it in the fruit or vegetables. None of the metals found in the fruits and vegetables are at levels likely to cause illness.

**Air Stripper Emissions Report**
In addition to concerns about drinking water and homegrown produce, residents were concerned about potential health risks from VOC emissions from the two on-site groundwater air stripper treatment systems.

One treatment system treats groundwater from the surficial aquifer and the other treats groundwater from the Floridan aquifer. Each system has an air stripper that removes the VOCs from the groundwater and releases them directly to the atmosphere. DOH estimated the air concentrations of VOCs released from both air strippers and found the levels are not likely to cause harm.

**Indoor Air Testing Report**
To address residents’ concerns about the possibility of vapors from the VOC groundwater contamination coming up into nearby buildings, Florida DOH and Volusia CHD tested for 57 different VOCs in the air of three buildings adjacent to the site located above an area with the highest levels of groundwater contamination. We also tested a background home about a half mile away. Florida DOH did not find the main contaminants of concern, trichloroethene (TCE) and tetrachloroethene (PCE), in the indoor air of the three buildings tested. Florida DOH and ATSDR expect to publish a report on the indoor air testing later this year. It will also be available at the website above.

For more information:
- For questions about well water testing, call Wendy Howland with the Volusia CHD at the DeLand field office at: 386-822-6250.
- For questions about the drinking water well testing or air stripper emission reports, call Elizabeth Tull with the Florida DOH at: 877-798-2772 (toll-free).
- For questions about the homegrown produce or indoor air testing reports, call Susan Skye with the Florida DOH at: 877-798-2772 (toll-free).
- For questions about the site cleanup, call Erik Spalvins with the US EPA at: 404-562-8938, or call Chris Pellegrino with the Florida DEP at: 850-245-8937.

Please share this update with your friends and neighbors!