

# Be aware of dangers of oil tanks in basements and back yards

## Undetected leaks contaminate soil or groundwater areas

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Before the upcoming heating season begins, homeowners may want to check on their oil tank in the basement or yard.

According to Bruce H. Nickelsen, a geologist and associate of O'Reilly, Talbot & Okun Associates, Inc., 19 West Main St., Westboro, undetected leaks in aboveground and underground tanks can cause serious damage to property and the environment. And in many cases, those leaks may not be covered by insurance.

Mr. Nickelsen, who is a licensed site professional certi-

fied in Massachusetts to oversee waste cleanups and a licensed environmental professional certified in Connecticut, said in most cases in older homes a copper tube under the floor comes out of the oil tank and is attached to the furnace. The tube should also be housed inside a plastic core that acts as a secondary containment in case of a spill.

Mr. Nickelsen said he's surprised at how many homes have only an exposed copper pipe.

"Sometimes it wicks up through the concrete. And if it's a tight clay formation that doesn't absorb, you'll get a stain in the concrete. But in a sandy

formation, with groundwater below, it might go straight down and you won't even smell it. It's just gone.

"I've seen what started as a small leak that leaked over a period of time and the owner didn't catch it. It wasn't catastrophic enough to notice."

Mr. Nickelsen said the damage caused by oil leaks can vary by the sensitivity of the location.

"If you're in a rural setting, near a well, or neighbors are near wells, that's a much more sensitive setting than an area where everyone is on public water and public sewers."

Earlier this year, school and town officials in Holden discovered that a 46-year-old underground oil tank had leaked about 9,000 gallons of oil into the soil at Jefferson School.

Mr. Nickelsen said, "More

often there'll be a situation where the owner says they just filled it up last week, now it's dry."

In the Holden instance, the leaks followed an oil delivery Jan. 5 in which the tank was initially overfilled, School Superintendent Thomas G. Pandiscio said. That leak of a few gallons was contained the same day by Clean Harbors Environmental Cleaners.

But when school personnel arrived at school on Monday, Jan. 8, the oil tank was empty.

In another example, town officials in Millbury are at odds with the state Dept. of Environmental Protection over assurance payments stemming from an oil spill in the basement of the Asa Waters Mansion six years ago.

When the 1,000-gallon storage tank was removed in 2001, oil

was found in the soil, and there were indications that the tank had been leaking for a while.

According to news reports, work continues at the mansion to clean the contaminated soil and find out where the oil may have gone.

Mr. Nickelsen said current and prospective homeowners should take extra precautions and have old oil tanks inspected by professionals.

"You would expect that home inspectors and home buyers would hone in on old-looking tanks with rust and staining at the bottom," he said. "Maybe they do. They may say they'll buy contingent upon removing an old tank. But I'm thinking they're probably not aware of this issue."

In many houses built after World War II underground storage tanks have a life of about 15

to 25 years. "Those were a big issue in the 1980s and early 1990s. Today, it is the ones that go through the concrete are more likely to come into play now," Mr. Nickelsen said.

Around the mid-1990s, Mr. Nickelsen said he had his first case of a homeowner's sump pump spewing oil to a drainage area and back.

"I realized that the line in her floor let go. Since then, I've seen it a few more times - because there's oil sitting on top of the water coming out of the sump."

Mr. Nickelsen advises, "People should go down in their basements and take a look at the piping that comes out of the tank and make sure it's inside some sort of secondary containment.

"And they can talk to their oil company and have them put it into a liner. That's the one thing that people can do."