

'Vapor Intrusion' an Emerging Threat from Groundwater Pollution

East Fishkill

Be Thankful for Your Water

by Roberta Clements

More than 30 years ago, people in East Fishkill started noticing problems with their water and, although the New York State Department of Environmental Conservation acknowledged there were serious concerns, the case was closed in 1994 and nothing was done.

Fast forward to 2003. People are getting sick. People are dying. And, as it turns out, the water of 100 or more homes and the air in 60 homes were polluted with petroleum-based tetrachloroethylene (TCA) and trichloroethylene (TCE) from a machine shop in the neighborhood. The Hopewell Precision site is now in line for placement on the National Priorities List, better known as Superfund.

The serious problem of how to address the cleanup remains, as does the attempt to have Hopewell Precision pay for the remediation. The Environmental Protection Agency was providing bottled drinking water, recommended air and water filtration systems, and gave the site a 100% rating of contamination. The toxic plume could affect 27,000 people in a four-mile radius.

Sierra Club member Debra Hall is living the nightmare. The water she drank, the showers she took, and the air she breathes in her house have made her husband and her neighbors ill with cancer, kidney and liver dysfunction, reproductive problems, and birth defects, to name a few.

In addition, residents are watching their pets die all around them. Debra has tirelessly enlisted local and national politicians and governmental agencies, as well as the media, to attempt to have these problems addressed.

Two Dutchess County legislators introduced a bill to have private residential wells tested for TCE and TCA upon sale of a property. The county legislature did not pass the law; instead, the issue was bumped to the Department of Health, which, in turn, has bumped it back to the county legislature, where it

Volatile organic chemicals, when present at even low levels in polluted ground water, can enter homes as a deadly vapor. Two upstate communities are coming to terms with the lethal legacy of New York's industrial history.

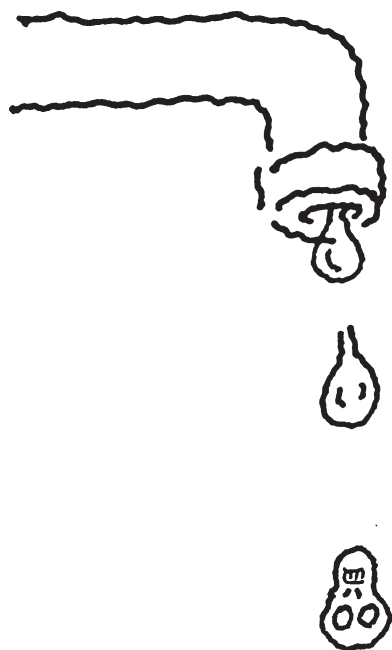
now languishes.

Estimates are that some 30% of residential properties in Dutchess County have such pollution from underground oil tanks in gas stations and from machine shops and other large manufacturers such as IBM (who accepted responsibility for the nearby Shenandoah Superfund site and paid financial compensation).

At present, the critical issue to address is the level of air contamination designated for filtration. Cutoff levels vary widely across the country (see adjacent article). "It's just not fair that someone can get their air cleaned in California but does not have the right in New York just because the guidelines are arbitrary," said Debra Hall.

So, she and her neighbors sit in toxic limbo and hope for the nightmare to end.

Roberta Clements is a member of the Mid-Hudson Group.



Wickman

Endicott

State Grapples with Conflicting Standards

by Scott Lauffer

A November hearing in Endicott (near Binghamton), conducted by the state Assembly's Standing Committee on Environmental Conservation, focused on chemical vapor contamination. At the core of the problem are conflicting pollution standards between state and federal agencies, resulting in differing numbers on the standard for a safe exposure level of trichloroethylene (TCE).

TCE is suspected of being carcinogenic and is known to cause central nervous system problems, birth defects and other chronic health conditions.

Community activists, educators and politicians called for a continued, aggressive, coordinated drive to clean up chemical pollution sites in Endicott, East Fishkill and other areas across the state. This was spearheaded by Assemblyman Thomas DiNapoli, chair of the committee, and Patrick R. Manning, R-East Fishkill, a committee member, who said the hearing focused attention on the need for the state to take a strong stance in the chemical cleanup effort across New York.

Manning said the Legislature likely will pursue legislation that will mandate stricter environmental standards. DiNapoli said similar hearings may be held in the East Fishkill area and other areas where airborne chemical pollution has been detected. There are certain to be more polluted sites needing this high level of attention due to the state's industrial history.

In 1979, the IBM manufacturing plant in Endicott reported to the DEC a spill of about 4,100 gallons of volatile organic chemicals (VOCs), including TCE. IBM, under DEC oversight, installed three extraction wells by 1982 and began pumping and filtering water from the contaminated site.

IBM has since reported that they have pumped over 80,000 gallons of TCE overall, which has barely put a dent in the cleanup. For some reason that the DEC has never adequately explained, in 1986 the site was downgraded from a Class 2 (posing a public threat) to a Class 4 (case closed) on the state's hazardous waste registry. It is only in this past year—with the assistance of Congressman Maurice Hinchey and pressure from citizens' groups—that it has been rightfully reclassified to a Class 2.

The state Department of Health (DOH) and the DEC felt that the pollution did not pose a threat to public health, as it was believed to be trapped in the ground. But early in 2003 traces of chemicals, including TCE, were found entering homes and businesses through a process called vapor intrusion. This is a phenomenon that was little understood by the scientific community. At least 480 properties in a 300-acre plume area between the IBM facility and the

Susquehanna River are affected by toxic vapor. IBM has installed ventilation systems similar to those used for radon gas in most of these properties to prevent chemicals from entering.

It was mainly through the outcry of a couple of citizens' groups, Residents Advocacy Group of Endicott (RAGE) and Citizens Acting to Restore Endicott's Environment (CARE) that the state has been pushed to fully address the pollution and potential health risks.

The state and county departments of health, the Agency for Toxic Substances and Disease Registry (ATSDR), the DEC and the EPA have stepped up their efforts in addressing the situation. They have held a series of public meetings in which people have voiced dissatisfaction at the slow pace of the cleanup and unanswered questions of the health risks to the community.

The most comprehensive study of the cancer rates within the plume area is not due until later next year. The Stakeholders Planning Group, originally consisting of 23 members of the community, including myself and Jack Keough from the Sierra Club, has also been formed to act as a watchdog of the cleanup.

In August, the DEC issued a consent order requiring IBM to speed up the cleanup. The order is critical of IBM and outlines specific steps the company must take in the next 12 months. The company is installing more extraction and monitoring wells, but even with more aggressive cleanup efforts, it will probably take a least ten more years to eliminate 80% of the VOCs from the groundwater.

The hearing produced a glaring lack of the Environmental Protection Agency's ability to address chemical air pollution standards for TCE. Its planned adoption of some standards, first proposed in 2002, is not now expected until 2006. New York's guideline allows concentrations of TCE nearly 300 times higher than a draft guideline in California. Assemblyman Manning thinks that in lieu of the inadequate EPA standards, New York should set its own guidelines for a safe level of TCE.

Among questions remaining for Endicott and similarly polluted sites in the state:

- What are the long-term health effects of these chemical exposures?
- Will revised standards still show that drinking water across the state is safe?
- Will ventilation systems keep residents' homes safe?

Scott Lauffer is chair of the Susquehanna Group.



Maurice Hinchey

What You Can Do

To learn more, contact Debra Hall at Hopewell Junction Citizens for Clean Water at DebraDuncanh@aol.com.

Sign a petition to lower the threshold for air contamination in New York state.

Contact the State Assembly, which is reviewing the best way to assess vapor intrusion:

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