The Philadelphia Inquirer January 3, 2007

Inspectors get access to day-care site; The state DEP had been barred from the mercury-tainted Kiddie Kollege.

Under a consent decree reached yesterday, state environmental inspectors will be allowed to enter the closed, mercury-tainted Kiddie Kollege Day Care to prepare for a cleanup of the contaminated site.

The agreement was reached in Woodbury just minutes before arguments were scheduled to be heard in Superior Court.

"The consent agreement provides the DEP with access to the property, effective immediately, to do whatever work is necessary to remediate the contamination," said Lee Moore, spokesman for the Attorney General's Office, which represented the Department of Environmental Protection.

The work could include sampling the groundwater, septic system, soil around the building, and anything else the DEP regards as necessary.

Kiddie Kollege, which was operating in a defunct thermometer factory in Franklin Township, was shuttered in July after high levels of dangerous mercury vapors were detected inside the building where children were playing.

The DEP filed a complaint last month against Jim Sullivan Inc., a real estate development company listed as owner of building, saying it refused to allow access to the site to begin the cleanup studies. At the same time, the DEP also filed a complaint against Navillus Group, another Sullivan entity that had acquired the thermometer factory in 2001.

Glenn A. Harris, who represents Jim Sullivan Inc. and Navillus, said yesterday that his clients never blocked DEP access.

"I would have given them the key. We simply said that we didn't have the legal ability to sign an access agreement," Harris said. "Jim Sullivan Inc. does not have good and legal title to that property."

Harris contends that the tax sale certificates were acquired by a Navillus Group L.L.C., which he says does not exist. His client's company is called Navillus Group General Partnership. Therefore, Harris said, the property was not legally transferred because the name of the company on the title papers was not accurate.

Last fall, Navillus and Jim Sullivan Inc. filed suit against the DEP, claiming they are not the legal owners of the Accutherm property and therefore not responsible for the cleanup. Harris contends that Accutherm is still the true owner of the property. Philip Giuliano, the owner of Accutherm, has not returned repeated calls for comment.

Sullivan rented the Accutherm building to Kiddie Kollege operators, allegedly without telling them about the existence of the thermometer factory, which closed around 1994.

Several of the 100 children who attended the day care and preschool registered high levels of mercury in their bodies after it was closed in July.

Subsequent tests showed that, in most of the children, the levels of mercury had declined, and state health officials said the children should not suffer long-term effects. But several parents, who believe their children still show signs of mercury contamination, have filed lawsuits naming Jim Sullivan Inc., Navillus Group, the DEP and others.

When DEP inspectors discovered last April that the day care was operating on a contaminated site, they asked Sullivan whether it had been cleaned up. Sullivan said then that he had obtained a U.S. Environmental Protection Agency report that the site was "no immediate threat" and he interpreted that to mean the factory had been cleaned up. He allowed access to DEP inspectors in July and August and they found elevated levels of mercury vapors and mercury beads in the floor joists.

DEP spokeswoman Elaine Makatura said yesterday that the agency believes Sullivan's attorney later blocked access to the site when the agency decided to conduct a full investigation to determine the extent of the cleanup needed.

"At long last, the DEP can access the property to determine what's on the site. It's a shame we had to go through the legal route to get that access," said Makatura.

Philadelphia Inquirer January 12, 2007

New law toughens rules for day cares

Gov. Corzine signed a bill yesterday designed to prevent another Kiddie Kollege, the mercury-tainted day-care center in Franklin Township that exposed roughly 100 babies and toddlers to poisonous vapors.

The legislation requires day-care centers to obtain environmental assessments and inspections before they can open at an industrial or other contaminated site. It also raises the fine to $50,000 a day for failing to obey a cleanup order.

Government inaction at all levels, a failure to enforce cleanup orders, and incomplete record-keeping allowed Kiddie Kollege to operate for two years in a former thermometer factory that still had beads of mercury clinging to the floor joists. The Gloucester County day care closed in July.

"This bill will help identify and remediate educational facilities and child-care centers located on environmentally high-risk sites," Corzine said after signing the legislation at Delsea Regional High School in Franklin.

"This puts New Jersey at the forefront of states nationally in protecting children from environmental contaminants while at child-care facilities and schools."

Environmental watchdog groups said the legislation didn't go far enough. The bill protects children in day cares and schools - but not homeowners - from occupying contaminated places, said Bill Wolfe, a former adviser with the state Department of Environmental Protection who now heads Public Employees for Environmental Responsibility.

"When you are buying a new house or an existing one, you have no assurance it's not on a toxic site or being affected by a toxic site," he said.

Jeff Tittel, director of the state chapter of the Sierra Club, characterized the new law as a "baby step" in the right direction. "They talked the talk," he said. But he complained that the new law applies only to new day-care centers and schools opening a business, allowing existing ones to escape scrutiny.

Under the new law, day-care centers and schools must obtain indoor air-quality approvals from the state Department of Health and Senior Services before receiving a building or occupancy permit.

Health officials will also develop new air-quality standards, taking into consideration that children are more vulnerable than adults to toxic substances. Parents had complained that existing standards were too high because they were based on studies conducted on adults.

At Kiddie Kollege, tests in the summer found mercury vapors were 27 times the allowable limit established for adults. The children were tested and found to have elevated levels of mercury contamination in their bodies. Several weeks later, after the children were tested again, most showed lower levels of contamination. Officials have concluded that none should suffer serious health effects, but some parents say their children have peeling skin on their fingers and toes, symptoms of mercury contamination.

The new law also requires the state DEP to certify that a toxic site has been thoroughly cleaned up before a day care can open for business. Toxic sites would include those that were previously used for industrial, storage or high-hazard purposes and that have known or suspected contaminants. They include such sites as nail salons, dry-cleaners and gasoline stations.

The law also gives the DEP a broader range of enforcement options to ensure that contaminated sites are remediated. It doubles the daily fine for failure to follow a cleanup order to $50,000.

For 10 years, the owner of the bankrupt thermometer factory ignored DEP cleanup orders. The property was later foreclosed upon and transferred to new owners in 2001. The day-care operators, who rented the building, said they knew nothing of the contamination.

"The discovery of mercury at Kiddie Kollege was devastating to the parents, children and residents of Franklin," said State Sen. Fred H. Madden (D., Camden-Gloucester), a key bill sponsor.

"This legislation is not about pointing fingers and placing blame, but instead, we want to ensure that what happened at Kiddie Kollege never happens again."

Press & Sun-Bulletin January 18, 2007

24 sites still have TCE vapor

Vapors from subterranean pollution are still penetrating 24 properties ; including some occupied by renters — in Endicott and the Town of Union, years after state officials identified the problem and took steps to fix it.

The properties, identified in correspondence earlier this month from IBM Corp. Click for Enhanced Coverage Linking Searchesto the state Department of Environmental Conservation, didn't receive protective ventilation systems to block trichloroethylene (TCE) vapors in polluted hot spots throughout the area.

Since vapor intrusion was discovered in 2003, IBM Corp. Click for Enhanced Coverage Linking Searcheshas installed systems on more than 450 properties south of its former microelectronics plant on North Street. The DEC has installed systems on about a dozen more in other parts of the village and the town.

Reasons vary why some polluted properties still lack the systems, which involve installing pipes under foundations to vacuum subterranean chemical vapors and disperse them in outside air. According to an investigation by the Press & Sun-Bulletin:

* Some landlords have declined the systems, and tenants were never notified about the problem.

* Contractors have encountered problems installing the systems, including safety issues in some buildings with structural problems.

* Owners have died or are unresponsive to requests by the state Department of Health to arrange for the work.

* Skepticism about the effectiveness of the systems and plans to pay for operating and maintaining them have deterred some property owners.

Health officials are eager to vent properties, even if they are vacant, to prevent future problems if they are renovated or sold.

Wade and Teresa Gould rent a home at 305 Arthur Ave. owned by Frank Bush of Endicott. They remember when contractors came to test the property, but were puzzled that they never got the results. That's because officials typically notify property owners, who are not required to notify tenants.

"It would be nice if when they did the testing, we got the results," said Wade Gould, who was not aware last week that the home was on a list of properties that need a system.

Bush could not be reached Wednesday.

Some property owners, including Helen Cargill, who lives at 2111 Riverview Drive within the boundaries of the pollution, have been overwhelmed with other problems. A sewage backup in 2005 and the flood of 2006 extensively damaged Cargill's home and required extensive renovations. The pollution-blocking systems, paid for by the state or IBM Corp., Click for Enhanced Coverage Linking Searches involve work in and outside the house and she was not eager to have her life interrupted by yet another contractor.

"I just don't know if I can go through another mess," she said. "I don't know what the systems are doing for anybody. We went to meetings for hours and never got any good answers."

Health officials say the systems are effective in eliminating traces of TCE — an industrial solvent associated with diseases ranging from cancer to brain damage — inside buildings and transferring them to outside air, where they disperse.

Debate remains, however, about to what degree the vapors disperse. IBM Corp. Click for Enhanced Coverage Linking Searchesis conducting ongoing sampling of outdoor air in the affected area to find answers. There is also uncertainty about what levels are dangerous and how long people have to be exposed, although health officials generally agree that some people are more vulnerable than others.

Meanwhile, state lawmakers said Wednesday they are in the process of reintroducing legislation that would require landlords to notify tenants of buildings affected by vapor intrusion.

Legislation, sponsored by Assemblywoman Donna A. Lupardo, D-Endwell, and Sen. Thomas W. Libous, R-Binghamton, unanimously passed last year before being vetoed by former Gov. George E. Pataki on the grounds that it was too broad.

Lupardo said she was optimistic the same bill would become law this time around, under the administration of Gov. Eliot Spitzer. Libous said he was "'committed" to the bill, which is "about protecting the health and safety of individuals."

The new governor is no stranger to the issue. As attorney general, he was involved in negotiating an offer in 2004 from IBM to pay affected property owners $10,000 if they agreed not to sue the company for pollution devaluing their property. The deal did not prevent lawsuits based on health claims.

"We're very much aware of the significant health concerns with vapor intrusion in homes," said Marc Violette, spokesman for Spitzer. "If it gets to the governor's desk he will consider it carefully."

Morning Call January 28, 2007

Fumes from likely carcinogen raise health, environmental concerns; Ventilation pipes are being used to clear air of TCE in Perkasie.

In the northern Bucks County borough of Perkasie, toxic land has been a part of life for decades.

It's the legacy of long-gone industries whose heavy chemical use, dating to the late 1800s, have plagued the town since an underground cocktail of contamination was discovered in the late 1970s.

There were always assurances the drinking water was safe, that the problem wasn't forgotten. It wasn't until late last year, though, that some residents found out they had a new problem right under their noses. They suddenly had to worry about the air they've been breathing all these years -- in their own homes.

So far, three Perkasie homeowners have been told by federal environmental officials that hazardous fumes from a potential cancer-causing chemical are rising through their basement floors. Plastic ventilation pipes have been installed to remove the fumes.

It's the type of revelation played out in towns across the country, most notably in the southern New York village of Endicott, where ventilation pipes poking out of nearly 500 homes are emblematic of a growing environmental problem that went unnoticed for years near old and abandoned industrial properties.

"It's upsetting," said one Perkasie homeowner who had a vent system installed in her house. The woman, who is pregnant, didn't want her name used because she didn't want to draw attention. "My initial thought was my daughter. What is she breathing in? It becomes, Oh my God, am I putting my child at risk? And the financial risk is that my house is now worth nothing."

So-called vapor intrusion, particularly vapors from trichloroethylene, or TCE, a nationwide environmental plague, is fast becoming one of the biggest and most debated environmental issues in the country. It has prompted new health concerns, fears of plummeting property values and a rash of lawsuits. It's also driven up the price tag of hazardous waste cleanups.

There are numerous TCE-contaminated sites throughout the Lehigh Valley. The chemical has been found in 60 percent of the 1,430 contaminated sites on the U.S. Environmental Protection Agency's National Priorities List.

TCE is a solvent that was used heavily in industry to remove grease from metal parts. It's also used in paints, adhesives and spot removers. Drinking or breathing high levels may cause damage to the nervous system and liver and lungs and can even cause death in extreme cases, according to the Agency for Toxic Substances and Disease Registry, which says the TCE concentrations in Perkasie homes would have to be "1,000 to 10,000 times greater" to pose a cancer risk.

At about $2,500 a piece, the ventilation systems cost an estimated $1.2 million or more in Endicott, where 508 systems were installed at 446 properties, according to the New York State Department of Environmental Conservation. IBM, whose former Endicott plant is partially blamed for the problem, is picking up the bill. The Perkasie project is expected to cost $40,000.

"I'd rather be safe than sorry," borough Councilman Harry McGonigal said of the vent pipe project. "This is supposed to be a precautionary measure."

In Endicott, where indoor TCE fumes were first discovered in 2002, residents have been critical of environmental officials for not addressing the problem sooner.

"It's unbelievable," said Betty Havel, an Endicott resident and member of the town's council, in a phone interview. "It's information you never wanted to think you wanted to deal with.

"This devastated our community. We're killing our people and our planet."

A prevalent problem

Research has shown elevated cases of testicular cancer, kidney cancer, heart defects and low birth weight among Endicott residents compared to communities of similar size, according to the New York State Department of Health. The health department says it has not yet determined whether those elevations are due to exposure to TCE, but further studies are ongoing.

The National Academy of Sciences reported last year that growing scientific evidence suggests the solvent may cause cancer in humans.

In Perkasie, the ventilation systems that the EPA is installing are similar to those in Endicott and resemble devices used to remove the radioactive gas radon from air inside homes. Like the people in Endicott, Perkasie residents have known since 1979 that TCE was in the groundwater.

Years-long TCE contamination probes number so many in Perkasie that the borough has a federal cleanup site bearing its name -- "Perkasie TCE" -- on a list of Superfund sites.

Federal investigators have identified three companies believed to be sources of the contamination -- the former Stainless Inc. property and a vacant industrial site, both on Ninth Street, and the former V&M Tool Co. on Chestnut St. Officials are investigating at least seven other borough properties.

The EPA began testing air in Perkasie homes in 2004 after the discovery of higher-than-normal levels of TCE vapors in a sump pump at Delbar Products Inc., 601 W. Spruce St., a company not considered a contributor to the contamination.

Similar TCE removal measures have been taken at two Berks County toxic waste sites -- in Bally and Hereford Township -- and in Hazle Township and West Hazleton Borough in Luzerne County.

It's also happened in Hopewell Junction, N.Y. and Ashland, Mass.

The Pennsylvania Department of Environmental Protection recently reported higher than average concentrations of airborne TCE in the Collegeville area of Montgomery County, one of several

sites in the state where air quality is monitored. The DEP says the higher TCE concentrations have a "significant bearing" on excess lifetime cancer risks and the agency is asking for a reduction in TCE emissions from industrial plants there.

TCE vapors in homes have become so much of a concern in New York that federal lawmakers there have called for congressional hearings on the health effects of vaporized TCE in New York and other parts of the country.

"It's very prevalent," said Ellen Relkin, an attorney with the New York-based Weitz and Luxenberg law firm that represents hundreds of Endicott residents. "Ten, 20 years ago when a contaminated well was discovered, they would test people's wells. If there was contamination, they would focus on the water supply and providing bottled water. In those days, they didn't typically test the air."

Environmental protection agencies that once focused most of their efforts on groundwater cleanups at hazardous waste sites are now revisiting many of them -- including those declared cleaned up years ago -- to survey indoor air quality.

In an article appearing last year in The New York Environmental Lawyer, a publication of the New York State Bar Association, a high-ranking EPA administrator called toxic vapor intrusion a "potentially widespread" problem.

"We are now learning that it is more common, more persistent and more severe than it had been imagined as recently as three or four years ago," wrote Walter Mugdan, director of environmental planning and protection at the EPA's New York region office.

"The phenomenon has long been understood," he wrote, "but it was generally and erroneously believed that it was rare for vapor intrusion in buildings to reach levels that present health concerns, especially at sites where groundwater contamination has been satisfactorily addressed."

Wake-up call

The EPA first used ventilation systems to remove TCE from homes in 1997, according to David Sternberg, an agency spokesman. But it wasn't until 2002 that "vapor intrusion" became a hotly debated issue. That year the Denver Post published stories that claimed the EPA downplayed or disregarded the problem.

Gary Brown, an environmental engineer and president of RT Environmental Services in Montgomery County, said the series "woke every one up."

Shortly after, the EPA began developing guidelines to assess vapors emanating from groundwater and soil.

Jim Woolford, who heads up the EPA's office of Superfund remediation and innovative technology, characterized vapor intrusion as an "emerging issue," and said the EPA has no plans

to revisit all of the nation's TCE-tainted sites to test for potential indoor air problems. However, he said, until the National Academy of Sciences finishes its evaluations, the agency won't know whether those sites are affected.

"If a state raises a potential issue to us, or even if there are residents in an area that raise a concern to us, we would certainly evaluate the possibilities for vapor intrusion," Woolford said. "In New York, the state is doing a lot more than [the EPA]. We're working with the state, not to investigate every site, but to screen through and sort out what sites we may [need to revisit]."

How much is too much?

While environmental and health agencies agree TCE vapor can be a problem, they can't agree on when it becomes a problem. The EPA and other agencies still haven't been able to reach a consensus on how much TCE in the air is too much for people.

"The animal data in high doses [of TCE] is pretty conclusive, but in human studies, it's very suggestive, but inconclusive," said Karl Marciewicz, a senior toxicologist with the toxic substance registry. "It's not a known carcinogen. It's a suspected carcinogen."

Environmental and health agencies are still debating the TCE levels at which action should be taken to remove fumes from homes.

Richard Fetzer, the lead EPA investigator at the Perkasie TCE site, wrote in a June 2006 report that environmental and health agencies are considering a range of "action levels" up to 65 parts of TCE per billion parts of air by volume.

The concentrations in the air inside the three Perkasie homes ranged from 0.78 to 21 parts of TCE per billion parts of air by volume. Officials have reported no potential health problems associated with the fumes in Perkasie. In Endicott, the highest concentration found in basements since testing began in 2002 was 200 parts of TCE, although the highest level in "frequently occupied areas" was 19, according to environmental agencies.

Marciewicz and his agency recommended ventilation systems for the Perkasie homes based on the test results, although he said the indoor TCE levels would have to be "1,000 to 10,000" times greater to create a cancer risk.

Brown, whose firm has installed ventilation systems at a number of contaminated sites, said environmental agencies typically are overly cautious when setting levels at which action should be taken.

Testing

Pennsylvania's Department of Environmental Protection tests air quality in residential buildings if groundwater concentrations near toxic sites go above 14,000 micrograms of TCE per liter of water within 100 feet of a home. The state takes steps to address water quality if TCE levels are above 5 micrograms.

DEP spokesman Ron Ruman said Pennsylvania was one of the first states to come up with a guide on how to deal with vapor intrusion. He said his agency would likely adopt EPA's standards for addressing vapor intrusion once they're approved.

"The big thing is what EPA does," said Moore, the environmental engineer. The EPA's vapor program likely won't come soon.

Woolford, of the EPA, said the National Academy of Sciences' ongoing TCE research is in the early stages of a two- to four-year process. He said it could take as many as four or five years for the EPA to come up with standards for taking action on TCE fumes in homes.

The Philadelphia Inquirer February 8, 2007

DEP orders water testing at 60 day cares It issued the orders to pollution-prone businesses that are within 400 feet of child-care centers.

New Jersey's Department of Environmental Protection has identified polluted groundwater near 60 day-care centers and has ordered immediate testing or other proof to determine whether children are exposed to toxic vapors or drinking water.

In the nine months since DEP inspectors discovered Gloucester County's Kiddie Kollege day care, where children were playing in a mercury-polluted former thermometer factory, DEP officials have reviewed the locations of hundreds of child-care centers to see whether others are on or near known contaminated sites.

About 700 day-care centers throughout the state, DEP found, were within 400 feet of polluted sites. Kiddie Kollege was ordered shut and an unknown number of others closed voluntarily as DEP inspectors fanned out and ordered testing whenever potential dangers were found.

Last week, DEP quietly ordered owners of 60 contaminated properties - mostly gas stations or manufacturers with leaking tanks - to test neighboring day-care centers' indoor air and drinking water for benzene, a cancer-causing chemical, and for other toxic substances. If the owners can show that the underground contamination is spreading away from the day-care centers, they may not have to take samples.

The DEP letter was sent to the owners of properties known to be polluted with high levels of dangerous volatile organic compounds that are within 400 feet of day-care facilities. Polluted groundwater can cause dangerous vapors to seep into buildings.

John Brennan, an environmental consultant, said DEP gave his clients three days to acknowledge the new order and 14 days to submit a remediation plan and work schedule.

They were also instructed to treat any problems - which could include installing an expensive air-vent system - or face penalties.

"The vapor testing has become the imminent thing," Brennan said.

DEP wouldn't disclose the names of the child-care centers or the 60 contaminated sites.

"It wouldn't be fair to single them out when they have not been identified as the source of a problem in a child-care center," said Larry Hajna, DEP spokesman.

For Bill Wolfe, an environmental watchdog and former DEP adviser, the latest order for vapor testing is vindication. Last month, he urged Gov. Corzine to veto parts of a post-Kiddie Kollege bill - it was designed to protect day-care children and schoolchildren from environmental dangers - because it did not require immediate indoor-air testing. The new law requires day cares to conduct air testing when renewing their licenses from the state Department of Children and Families.

Wolfe says DEP should also order indoor-air testing in houses and commercial buildings near polluted groundwater.

"If there's 60 day cares being impacted, think how many more homes and businesses - probably several hundred or thousands - that could be impacted," he said.

The children who attended Kiddie Kollege before it closed in July were found to have elevated levels of inhaled mercury in their bodies. Later health checks showed the levels had dropped. Health officials said the children should suffer no long-term health effects.

Ronald T. Corcory, an assistant DEP director, said the new tests ordered by his department are part of DEP's continuing effort to protect children from contaminants. He said he doubted the testing would uncover any unknown problems. Tests were ordered only as an "extreme precaution," he said.

"What we're focusing on is that no one in the building is breathing contaminated air, drinking contaminated water or playing in a contaminated area," Corcory said. "The whole purpose is so that we don't have another Kiddie Kollege."

The New York Times February 9, 2007

Cuomo Moves Toward Lawsuit Over a 50-Year-Old Oil Spill in Greenpoint

New York State moved to sue Exxon Mobil and four other companies on Thursday to force them to clean up a half-century-old spill of millions of gallons of oil lying under the Greenpoint neighborhood in Brooklyn and to repair environmental damage inflicted on nearby Newtown Creek.

The spill, originally several times the size of the Exxon Valdez oil leak, resulted from an accident in the 1950s and lay undiscovered until 1978. In notices of intent to sue that were sent to the five companies, Andrew M. Cuomo, the state attorney general, said that so much oil had leaked into the creek that some samples of its sediment, when dried and weighed, were nearly one-tenth oil.

The notices also disclosed that an internal study by one of the companies found nearly 100 different pollutants in the creek water or sediment, including benzene, arsenic and lead.

The other companies receiving the notices were BP, Chevron, KeySpan and Phelps Dodge.

The state's action is a sharp turning point in its handling of the spill, which in recent years has occasioned lawsuits by Greenpoint residents, local elected officials and environmental groups. A 1990 agreement between Exxon Mobil and state environmental officials had required the company to recover the spilled oil, but it specified no deadline and required no remediation of either the creek or the polluted soil under Greenpoint.

About eight million gallons of oil and petroleum byproducts are believed to remain underground, and past soil tests have revealed that the spill releases toxic vapors into the neighborhood above. Mr. Cuomo's action will seek a far faster pace for recovering the oil, extensive scientific testing to determine damage to the soil and groundwater, and millions of dollars in fines. Cleanup costs could increase the companies' expense by tens of millions of dollars, Mr. Cuomo's aides said.

"This is one of the worst environmental disasters in the nation, larger than the Exxon Valdez and slower in the cleanup," Mr. Cuomo said in a statement. "Exxon Mobil must and will be held accountable. The toxic footprint of Exxon Mobil is found all over this area. It is Exxon Mobil's oil that remains under the homes and businesses. And it is Exxon Mobil that has dragged its feet and done as little as possible to address the dangers that it created."

According to the notices, Exxon Mobil's current mechanisms for recovering the spilled oil have, as a side effect, discharged yet more pollutants into the creek, a process that the company has been aware of for years, the notices say. A spokesman for Mr. Cuomo said on Thursday that Exxon Mobil had also been reselling some of the recovered oil, even as it allowed the creek to become more polluted.

Barry Wood, a spokesman for Exxon Mobil, said the company had not received the notices. In a statement, he said the company had already helped recover more than 9.3 million gallons of the petroleum products.

"While the cost of remediation at the site is confidential, Exxon Mobil is committed to remediation of the site, and we have been aggressive in our efforts and have made significant progress," Mr. Wood said.

He added that the company remained committed to its 1990 agreement with the state's Department of Environmental Conservation.

"We take our environmental responsibilities very seriously and have committed substantial resources toward cleaning up the site," he said. "Complex remediation projects such as this, where the product to be recovered is under ground and not easily accessible, takes time to complete."

Phelps Dodge operated a copper smelting plant on the creek's north bank, in Queens, where studies have found heavy metals and other pollutants. Companies later acquired by KeySpan owned gas processing facilities along the waterway that contaminated the creek's sediments with some of the same pollutants and other toxic chemicals, according to the notices.

Companies later acquired by Chevron and BP operated storage or refinery facilities along the creek that leaked oil into the ground, according to the notices.

Together, the notices significantly widen the scope of state legal action concerning the creek, a dirty, 3.5-mile-long estuary that marks Brooklyn's northern border and flows into the East River. Local politicians said yesterday that they believed Mr. Cuomo's actions would pave the way for a long-overdue cleanup of the creek and its transformation into a recreational waterway.

"The Brooklyn-Queens waterfront has the potential to be New York's Gold Coast, with sparkling towers, schools, parks and libraries," said Eric Gioia, a City Council member whose Queens district abuts the creek. "Cleaning Newtown Creek is critical to that vision."

Gov. Eliot Spitzer, who took over investigation of the spill from the state's Department of Environmental Conservation last year when he was attorney general, praised Mr. Cuomo's decision.

"This is an important day for the people of Greenpoint, Brooklyn," Mr. Spitzer said. "It is imperative that Exxon Mobil and the other companies responsible for this pollution be held fully accountable."

When first discovered, the spill was estimated at 17 million gallons of oil and oil products spread over 100 acres. Currently, the spill covers about 55 acres.

For years, Greenpoint residents have watched as environmentalists battled state officials and the companies responsible for the oil. In 2004, Riverkeeper, an environmental group, decided to file its own lawsuit against Exxon Mobil. The following summer, soil tests performed by the group showed toxic fumes coming from the ground over the spill. That caused a second lawsuit by about two dozen Greenpoint residents.

Both suits are active, but local officials and environmental groups said Mr. Cuomo's move would put significant new pressure on Exxon Mobil.

"They have managed to manipulate and work with previous administrations and enlist their help in avoiding a serious remediation," said Alex Matthiessen, the president of Riverkeeper. "Attorney General Cuomo's notice letter brings that to a screeching halt."

Federal laws require Mr. Cuomo to give the companies advance notice of his intent to sue them, and to allow the companies to avoid the suits by acting quickly.

BP, Chevron, KeySpan and Phelps Dodge have been cooperating with state officials to clean up their own properties, according to Robert E. Hernan, an assistant attorney general who heads Mr. Cuomo's environmental enforcement unit.

But Exxon Mobil may prove more resistant. According to the notices, the attorney general's office recently approached the company and asked it to take responsibility for stopping continuing leaks at one of two sites it owns. The company declined, the documents state, and Mr. Hernan predicted that it would fight the new action in court.

"Our expectations are not high," he said.

Dayton Daily News February 9, 2007

Health, property values top concerns; Residents affected by contaminated groundwater voice fears.

DAYTON - Michael Saylors, 37, grew up in the neighborhood that now is under a cloud from potentially harmful contaminated groundwater that is leaking vapors into homes.

Saylors, a Dayton police officer, lived in the neighborhood 25 years before moving in 2000. His mother, Roberta Combs, 58, still lives there. He's worried about her health and his, too.

An air evacuation system has been installed at her home on Leo Street.

While no health problems have turned up, Saylors also remains concerned about the effect the contamination could have on property values.

"That was a tight-knit community," he said. "The neighborhood is destroyed."

Mother and son attended a public meeting Thursday evening hosted by the U.S. EPA at Kiser Elementary on Leo Street. About 80 attended.

Judy Jordan, 53, lives in a house on Daniel Street where high levels of contamination have been found. The home has been in the family 70 years and she's lived there 10 years, she said. A system to deal with the contamination will be installed there soon. Still, she worries about whether the home will sell should she decide to leave.

"Is it safe to stay?" she wondered aloud. "I'm not too pleased."

The U.S. EPA said the systems have been completely effective in eliminating any health hazards in the homes - provided residents allow them to be installed.

The systems, at $2,000 each, are being paid for by DaimlerChrysler, which is also underwriting the cost of the electricity to run them.

DaimlerChrysler officials knew the company might have a problem with contaminated groundwater in 1996. Maintenance work at its plant in the 1600 block of Webster Street uncovered a pipe containing trichloroethylene (TCE), said Greg Rose, senior manager for regulatory affairs.

The discovery was unexpected, he added. The plant had been owned by the company since 1924 and it had been a manufacturing site since 1915, said Katie Zuchowski, DaimlerChrysler spokeswoman. But DaimlerChrysler stopped using the chemical in 1994.

After some investigation and by 1998, the company found the chemical had entered the soil. The company enrolled in the state's voluntary action program in its effort to evaluate and address the situation, Rose said.

By December 2004, it installed a groundwater treatment system at the plant that can pump 300 gallons per minute of groundwater from the earth for treatment. After adding a chemical agent that neutralizes the contamination, the water is returned to the ground where it came from, Rose said.

The company also installed testing wells around the plant to monitor the groundwater. In all, 75 wells on the plant's site and off-site were being monitored, said Steve Renninger of the U.S. EPA.

To the company, there was no indication that the groundwater posed any hazard, Rose said, until the Ohio EPA initiated its own set of tests in fall 2006.

The company, at the time, was focused on whether the groundwater itself could be harmful to health, Rose said.

But the state environmental agency - aware that contaminated groundwater could create harmful vapors - did a different set of tests in October, said Joseph Smindak, OEPA senior site coordinator.

It began to test for gas in the soil near the plant that could then filter into area homes through basements.

That's where the first indication of hazards to health turned up, Smindak said. The state agency then referred the issue to the U.S. EPA, which entered into a clean-up agreement with DaimlerChrysler.

Subsequent tests confirmed the problem and eventually turned up levels of gas in homes up to 650 times that considered potentially hazardous.

The science of soil gas hazards is a fairly new one and regulators are still learning how to deal with the issue, experts say.

Breathing high levels of trichloroethylene for a long period can cause nerve, kidney and liver damage. Low levels of the chemical don't appear to cause damage, according to the Ohio Department of Health.

Officials have said the groundwater is not threatening drinking water in the city of Dayton.

The Press Enterprise February 10, 2007

TESTS ONLY DEEPEN TOXICS MYSTERY;

Norco: A Cancer-causing Gas At A School Could Come From The Building, Not Wyle Pollution, Officials Say.

Cancer-causing vinyl chloride gas inside Norco High School could be linked to common building materials rather than to underground pollution from a nearby toxic waste site, state officials said this week.

Although soil gas tests from beneath the school are far from conclusive, state toxics officials this week said they haven't found a pathway between the groundwater pollution and the gas inside the school. The missing link leads state scientists to consider the unsettling possibility that the toxic gas is coming from the building itself.

It's a mystery that leaves the community wondering: If building materials are the culprit, how many students at other schools face the same health threat?

Starting in 2005, Department of Toxic Substances Control officials investigating pollution from Wyle Labs began finding vinyl chloride gas in three Norco High School buildings. The common assumption was that the plume was to blame because vinyl chloride is a breakdown product of trichloroethylene - the main pollutant in the groundwater contamination at and around Wyle.

For many, the latest test results raise more questions than they answer.

"It's a frustrating situation," said Corona-Norco Unified School District board member Bill Hedrick. "If Wyle isn't the cause, then we need to be testing other schools around the district to see if building materials are the culprit."

The potential culprits are the same poly vinyl tiles, carpets and wall coverings used in buildings around the nation. Such materials are capable of "off-gassing" - defined as emission through evaporation - the highly toxic vinyl chloride.

Several new schools and new science buildings in Corona and Norco were built using the same materials, said district officials.

The Environmental Protection Agency lists vinyl chloride among the nation's top-priority pollutants. According to the EPA, vinyl chloride is a carcinogen that chemically alters DNA in ways that could lead to the development of tumors. Trichloroethylene and vinyl chloride are most commonly linked to liver cancers.

However, several studies including those by Harvard University and the Massachusetts Department of Health have explored elevated leukemia rates in areas with known trichloroethylene contamination.

LEUKEMIA CASES

A handful of current and former students at the school have died from or battled leukemia, prompting class-action lawsuits against Wyle amid fears that its pollution is to blame.

The vinyl chloride levels found mainly in the science building at Norco High School are not high enough to pose a health threat to students, said Dr. William Bosan, a toxicologist for the California Department of Toxic Substances Control. Last year, Bosan announced an increased risk for cancer among teachers working in the contaminated buildings over a period of decades.

"We ride our hopes on the DTSC conclusion that these levels are so low, they don't pose a concern," said Norco High School Principal John Johnson. "We just have to wait and see what the source is."

MATERIALS IN QUESTION

Corona, Buena Vista, Eleanor Roosevelt and Kennedy high schools all have new buildings with significant quantities of poly vinyls, said Ted Rozzi, the district's facilities director. With another high school scheduled to be built in Temescal Valley, the district would want to find out if the building materials are the problem in order to avoid using them in new schools, he said.

At existing schools, the district could use ventilation systems like the one at Norco High to mitigate the problem until the materials cease to off-gas, added Rozzi.

However, it's premature to say whether the building materials or the plume are to blame, said Rafat Abbasi, the state's Wyle senior project manager.

The state conducted 19 soil gas tests around and beneath the high school's science building and found no traces of vinyl chloride, but another round of testing is to completed in June before anything can be conclusive, he said. While the preliminary tests open up the possibility that the building materials could be to blame, there is no evidence to prove that either, he said.

"We're still just trying to wrap our arms around it," said Abbasi.

As is the scientific community, said Dr. Steven Lester, a toxicologist for the nonprofit Center for Health, Environment and Justice.

NEW AREAS OF STUDY

The understanding of off-gassing as well as vapor intrusion from groundwater are pretty new, said Lester, who earned his master's degree in toxicology from Harvard and has been working with community groups on trichloroethylene and vinyl chloride contamination issues for 20 years.

The contamination at the high school could be caused from the building materials, groundwater vapor from outdoors or through plumbing, electricity and computer and phone line portals, he said. Or it could be a combination, he said.

It may not be possible to fully rule out the groundwater plume, said Lester. To narrow down the possibilities, the district could test air at other new schools or test the Norco school again after removing the vinyl materials, he said.

One thing is for sure, said Lester. "The mitigating measures are good, but you've got to remove the source," he said.

"There is no acceptable level of vinyl chloride," Lester said. "It doesn't occur in nature, and it's a known carcinogen. You've got children in there, and why would you ever want to expose children to carcinogens?

States News Service March 20, 2007

CLEANUP TO BEGIN AT FORMER SHAMROCK DRY CLEANERS SITE IN DERRY, N.H.

Environmental cleanup work will begin next month at the former site of Shamrock Dry Cleaners in Derry, N.H. The site, located at 3 Railroad Ave. in Derry, was a commercial dry-cleaning business between 1955 and 2001.

The U.S. EPA and the N.H. Dept. of Environmental Services (NHDES) will host an open house from 6 - 8 p.m. on Wednesday, April 4th at the Derry Municipal Center so that neighborhood residents may stop by and learn more about the upcoming work. Currently, the nearly half-acre site includes a concrete slab where the dry-cleaning business once operated, a paved parking area, and undeveloped land.

Joint investigations conducted by EPA and NHDES revealed elevated levels of a by-product of the dry cleaning process called PCE in the soil on the property. Investigations also revealed that the groundwater beneath the property has shows signs of PCE contamination. PCE is also known as tetrachloroethylene and perchloroethylene, and was used at the site from approximately 1984 through 2001. Prior to 1984, dry-cleaning was performed using petroleum hydrocarbon based cleaners.

PCE-contaminated soil on the property is an ongoing source of contamination to the groundwater and may also be a potential source of vapor intrusion to nearby buildings. Once in the groundwater, vapors migrate through the soil and along underground utility lines or drains and may seep through cracks in basements or foundations. Vapor intrusion is a concern because vapors can build up to a point where the health of residents or workers in an affected building could be at risk.

Over the next several weeks, EPA and NHDES crews will secure the site; conduct additional sampling to determine the full extent of contaminated surface and sub-surface soils on the site; excavate and ship the contaminated soil off-site for disposal at an approved facility; and cap any contaminated soil which may remain at depth.

Once excavation work is completed, the excavated areas will be backfilled with clean fill and graded. Also, EPA and NHDES will work together to investigate whether potential indoor air / vapor intrusion problems exist at nearby properties and whether they are due to contamination from the site. EPA has allocated $870,000 to the project which is expected to take three months to complete.

While this work is ongoing, the public is reminded not to trespass on the site.

Rochester Democrat and Chronicle March 25, 2007

Potential danger for homeowners was not clarified

Before Jim and Theresa Spillane moved into their new home a year ago in Victor's Renaissance Ridge subdivision, their builder mentioned something about chemicals in the ground far beneath their property.

The state Department of Environmental Conservation knew all about it, the builder assured them.

"The DEC had given it a clean bill of health and everything's fine," Jim Spillane recalled being told.

But about six weeks ago, the family received a fact sheet in the mail from the state agency about "Inactive Hazardous Waste Site #8-35-013." The sheet featured a map on which a swath of western Victor was colored violet to denote a plume of groundwater contaminated with toxic solvents.

Renaissance Ridge — a 15-lot subdivision with seven houses that range in value from $275,000 to nearly $600,000 — was shown atop the plume. And in recent weeks, DEC officials, responding to new findings about the solvents, have appeared at houses in the subdivision to sample indoor air for evidence of the solvents.

"I do have some concerns. One is, obviously, the health risk associated with it. The second one is: What impact can this have on the property value and the resale value?" said Spillane, who is awaiting test results for his home. "We're all obviously interested to know more."

In the 17 years since officials began studying the groundwater in western Victor, new development has continued. In the 1990s, one subdivision was built immediately adjacent to the known plume of contamination; a few other new homes were built nearby.

And in 2003, Pooler Development got town approval to begin work on a subdivision it called Renaissance Ridge, directly above the plume.

There is nothing unlawful about building homes on land affected by chemicals from a hazardous waste site. In fact, the state Brownfield Cleanup Program, enacted four years ago, encourages redevelopment of contaminated sites.

But development, through the brownfield program or not, is supposed to take place after the site has been cleaned up and health authorities deem it safe.

Remediation hasn't begun in this section of western Victor, and the precise origin of the plume hasn't been identified.

"You would be hesitant to build on a site if you know there's a plume of contamination under the property. You'd be particularly hesitant if the source of contamination had not been identified and remediated, because you're risking that the plume could continue and get worse," said Alan Knauf, a prominent environmental lawyer in Rochester.

In fact, Knauf was contacted last year by a real estate agent for another developer interested in building on land impacted by the Victor plume.

Knauf recommended against it, as did the real estate agent. Arlene Eggleston, who did not identify her client, said, "I thought it would be a marketing nightmare." The project died.

A subdivision was first proposed for the area now occupied by Renaissance Ridge in the late 1980s, but it was derailed by the discovery, in early 1990, of the groundwater contamination. The toxic solvents ruled out the use of private wells for drinking water, and the developer found it too costly to provide public water for prospective residents.

By the early 2000s, however, the town had run public water mains along Modock Road, and the subdivision idea resurfaced.

A review of Victor Planning Board files by the {dcidc}Democrat and Chronicle indicated the town, the developer and the state communicated frequently about the underground contamination in 2002, while the subdivision was awaiting town approval.

In a series of e-mails, the DEC and state Health Department advised the town and Pooler Development that the only possible problem was vapor intrusion, and the potential for that was quite low.

As a safety measure, the DEC and Health Department recommended installation of a special vapor barrier below each foundation, plus a venting system to remove harmful vapors from

basements. The systems were designed for radon, the naturally occurring gas, but would work just as well with solvent vapors, the state said.

"While it may not be possible to state unequivocally that residential development would be 'safe and appropriate' ... we certainly agree that such systems have the capability to correct any potential indoor air problems," read one e-mail sent by the DEC in December 2002 to the then-town supervisor, Jack Richter.

The Planning Board held two public hearings on the proposal — and residents near the site showed up at them to raise questions about whether construction in the new subdivision would impact their homes.

"The possibility of this coming up, this plume from the water, it's very scary for homeowners," said a neighbor, Leigh Vallone, at the second hearing, in December 2002.

That hearing included considerable discussion of the issue. Some board members focused on radon, even though it was noted that none had been found in the area. Other members noted the bigger concern was solvent vapors.

"We've done as much due diligence as we can and we are relying upon their (the state's) recommendations," town attorney Jeff Morris said near the end of the meeting.

In May 2003, the Planning Board approved the subdivision with three conditions: that radon mitigation systems be installed, that private wells be banned and that prospective homeowners be informed of the contamination issue. The final vote was 6 to 1.

Ernest Santoro was the only Planning Board member to vote no. He said it's the only time he's been the sole negative vote.

"The builder and their engineers were convinced that it wouldn't be a problem, that the flow was far enough underground that it wouldn't affect the houses. That didn't satisfy me," he said recently.

"I have not heard a word since," said Santoro, who lives near the subdivision. "Every time I drive by there, I wonder what's going on."

Pooler acquired the property and built the infrastructure, then sold lots to builders, who handled negotiations with prospective buyers and were responsible for informing them of the contamination, company President William Price said. All but one of the houses at Renaissance Ridge was built by Allison Homes of Spencerport.

Price, who joined Pooler after the subdivision was approved, said he was unaware of any complaints from current owners or objections by prospective buyers. Fewer than half of the subdivision's 15 lots have sold, which he attributes to a general economic downturn.

The company is confident the property is safe because it followed state advice, Price said. "The DEC correspondence helped us make the decision to stay with the project."

Two years after the town approved the subdivision, however, the DEC recommendations did change in one critical way. In December 2005, after several homes had been built in Renaissance Ridge, DEC officials sat down with Pooler and Allison Homes representatives and told them to be sure that all basement ventilation systems were active ones, meaning they included a fan to vent vapors to the outside atmosphere. Passive systems have no fans.

Basement ventilation had suddenly become a bigger issue because new scientific findings showed that toxic vapors could rise from considerable depths and accumulate in basements.

DEC officials stated recently that builders did retrofit several Renaissance Ridge homes with active systems, and that they should be adequate.

Allison Homes' president, Jack Hassall, said he had been confident the site was safe to build on, and was reassured by those meetings in 2005. The message he came away with was, "It was no big deal. There's nothing to be concerned with."

Hassall said he, like residents, was surprised to learn recently that DEC had returned to Renaissance Ridge to do air testing. If they do find solvents in basements, state officials said, the ventilation systems should alleviate the problem.

The Spillane home does have a system, though Jim Spillane said he never got an accurate explanation of why it's there.

"To eliminate or reduce chemicals? They never said that," Spillane said, referring to the builders and town officials. "No one ever mentioned it was anything other than radon."

The subdivision's newest home doesn't have a removal system at all, said its owner, Pam Ioriatti. Hassall of Allison Homes said the company didn't think one was required in the house, which has a more tightly sealed basement than other homes in the subdivision.

A physician who was negotiating to buy a Renaissance Ridge home in late 2005, Dr. Albert Hartel, said the builder offered to install a radon system only after Hartel brought it up.

Even more off-putting, Hartel said, was that Allison Homes officials didn't mention the contamination until he was about to sign the final contract.

"They came out with this, 'Oh, by the way, just sign this paper here.' There's some documents that say there's been a spill, but they said it doesn't apply to me," Hartel recalled.

Hartel said he declined to sign and did some research on his own. After contacting DEC and learning about the toxic solvent plume, Hartel decided it wasn't worth the risk, however small it seemed to be.

"I would just hate — 10 years, 20 years from now — saying, 'Why the heck did I subject my kids to this?'"

Hassall said it was standard procedure to handle the disclosure at that point in the process, and that Hartel was the only would-be buyer who has walked away because of the contamination issue.

Hartel said he even got back in touch with the DEC and the builder, and asked them to make sure people who had bought homes in the subdivision knew the full story. His intervention triggered the meetings in 2005.

"I would hate to have this on my conscience," he said. "I said, 'These people who live there need to know about this.'

Rochester Democrat and Chronicle March 25, 2007

Old waste poses new woe: Toxic vapors

One of the latest public health concerns involves a new problem at old locations: toxic vapors that could rise from long-known dump sites.

In recent years, environmental and health officials in New York and around the nation have come to the conclusion that volatile chemicals pooled far below ground have the capacity to rise in vapor and accumulate in the basements of homes and other buildings.

This has triggered fresh concern about thousands of old hazardous wastes nationwide. The state Department of Environmental Conservation has singled out 421 older waste sites for special attention — and 47 are in the Rochester region.

Among the locations where state officials may appear in the coming months to look for vapors: an old dump adjacent to a Gates subdivision; a part of Kodak Park near a Greece neighborhood; a large patch of western Rochester where businesses and a school were built atop an old city landfill; two locations near Xerox Corp. in Webster, and the site of a 1970 train derailment and chemical spill near the village of LeRoy, Genesee County.

There are more sites not on that list that have gotten or will get the same treatment.

The Modock Road Springs site in Victor, where DEC workers have been testing indoor air this winter, is one of them.

That site, like many others that will be examined for vapor intrusion, is contaminated with the toxic industrial solvent trichloroethene, or TCE, which is a probable human carcinogen. TCE can cause central nervous system, immune system and other problems in people exposed to high enough levels.

TCE is in the class of volatile chemicals, meaning they vaporize easily and can waft upward through the soil.

"This is something that has become a nationally understood concern," said Laura Haight, senior environmental associate for the New York Public Interest Research Group in Albany. "This is a new way that TCE can harm public health that DEC was not aware of. As a result of this discovery, the DEC went back and reopened hundreds of sites."

The sudden flurry of vapor testing has been triggered by environmental health officials' realization that their prior thinking about underground contamination was wrong. Like most environmental experts, they believed that chemicals in the water and soil far below the surface could never migrate upward in large enough quantities to pose a threat.

But an environmental investigation in Denver in the late 1990s proved that was not the case. A commonly used analytical tool had predicted there would be no threat in homes that were above a site contaminated with TCE. But when officials actually tested the homes, they found potentially harmful vapor levels.

Studies later verified that small amounts of volatile chemicals can evaporate into tiny air pockets and rise through the soil from dozens of feet deep, sometimes collecting in basements and other enclosed areas.

Concentrations of the chemicals in basement air usually is quite low — in the parts per billion range. But because scientists say long-term exposure to low levels of some solvents could be harmful to health, intervention to eliminate vapors is the common response.

The issue is a new one for most New Yorkers, though it's already exploded into public consciousness in a handful of places — most dramatically in Endicott, a village of 13,000 just west of Binghamton.

IBM Corp., founded in Endicott, had spilled TCE and other solvents at its large manufacturing complex there.

IBM and state officials announced the vapor intrusion problem in February 2003. Since then, basement ventilation systems have been installed in more than 450 properties.

The state Department of Health also released a study in May 2006 showing that the incidence of kidney and testicular cancer was higher than expected in parts of Endicott, as were heart defects and low birth weight in newborn children. Other studies have suggested that all those health problems could be linked to TCE exposure. The Health Department said its study was not designed to establish "a cause and effect relationship" between solvent exposure and the health problems, and it promised further analysis.

State officials and owners of waste sites statewide have made "significant progress" in the evaluation of hundreds of places where vapor intrusion may occur, the DEC said in a written statement. In some cases, field tests, including indoor air sampling, have been or will be done.

The Endicott situation, a similar one in Ithaca and a few others triggered a series of public hearings by the state Assembly's Environmental Conservation Committee in 2005. In a report issued in February 2006, the panel recommended that sites with the potential for vapor intrusion be aggressively cleaned up, that indoor air testing be conducted in any potentially affected building whose occupants requested it, and that ventilation systems be installed in any structure where TCE or other vapors were found.

Chambersburg Public Opinion March 27, 2007

Water pollution solutions delayed

QUINCY TOWNSHIP -- Residents in the Tomstown area of Quincy Township found out on Tuesday that they'll be waiting a year before getting a look at potential solutions to their water pollution problem.

"It reinforces what I believe about government," said resident Richard Stiles after the public meeting with the state Department of Environmental Protection. "It moves slow. That's OK. They'll make a decision eventually."

A degreaser known as trichloroethylene contaminates at least a dozen wells between Mentzer Gap Road and Shank Hess Road. DEP marked the contaminated wells with red dots on an aerial photograph at the front of the Quincy Township supervisors' meeting room. About 40 residents attended.

"I'm one of the red dots on the map," said Stiles, who's lived three years on Mentzer Gap Road. "I'm in limbo. What can I do? I have a 50-year-old well that has some issues. The sooner we get it settled the better."

"It's a long process," said John Krueger, program manager for environmental cleanup.

It will be a year before officials outline the area affected by the pollution and offer alternatives, such as tying into a public water system, according to Krueger.

And then there's money to worry about. DEP's Hazardous Sites Cleanup Act program is handling the investigation and could pay for extending a public water line to the polluted area, according to section chief Art Dalla Piazza. The program is up for renewal.

"Anything after July 1 is a question mark," Dalla Piazza said.

DEP offered bottled water to 11 families and installed a water treatment system in a home where there was a risk of inhaling TCE vapors from running water.

Carbon, or charcoal, treatment systems can be adequate for homeowners, but not for cleaning ground water, according to DEP officials.

"You'd have to pump these things for decades," Krueger said.

Dawn Moats said she installed a $1,400 treatment system in her home, and the level of TCE dropped from 14 parts per billion to less than 2 ppb. The EPA maximum for drinking water is 5 ppb.

She and her husband, Edward, are building on family land elsewhere in the township, and they're optimistic about selling the place near Tomstown. They are disclosing the water problem, and people are satisfied when they hear about the effectiveness of the treatment system, she said.

"I think anybody in the area is aware of the situation," she said.

The 65-lot development Mentzer Meadows is on hold because of the water situation.

"I'm just riding it out," developer Paul Gunder said. "I'm in so far I almost don't have a choice."

Gunder was a week away from final approval of the plans when his consultant discovered TCE in the sample wells. The consultant had recommended he test for TCE, Gunder said.

If he hadn't tested, no one would probably known about the pollution, Gunder said. He has invested nearly $100,000 in development design.

"Morally, it's better to find out now," he said. "Everybody's glad it was discovered."

Quincy supervisors are preparing an ordinance that would require anyone drilling a well to test for TCE.

DEP plans to drill wells to delineate the extent of the ground water pollution around Tomstown and to test soils to discover a potential source of the TCE.

Prior to the public meeting, DEP conducted a public hearing regarding its response to the discovery of the TCE. No residents commented.

Los Angeles Times March 29, 2006

How Environmentalists Lost the Battle Over TCE

After massive underground plumes of an industrial solvent were discovered in the nation's water supplies, the Environmental Protection Agency mounted a major effort in the 1990s to assess how dangerous the chemical was to human health.

Following four years of study, senior EPA scientists came to an alarming conclusion: The solvent, trichloroethylene, or TCE, was as much as 40 times more likely to cause cancer than the EPA had previously believed.

The preliminary report in 2001 laid the groundwork for tough new standards to limit public exposure to TCE. Instead of triggering any action, however, the assessment set off a high-stakes battle between the EPA and Defense Department, which had more than 1,000 military properties nationwide polluted with TCE.

By 2003, after a prolonged challenge orchestrated by the Pentagon, the EPA lost control of the issue and its TCE assessment was cast aside. As a result, any conclusion about whether millions of Americans were being contaminated by TCE was delayed indefinitely.

What happened with TCE is a stark illustration of a power shift that has badly damaged the EPA's ability to carry out one of its essential missions: assessing the health risks of toxic chemicals.

The agency's authority and its scientific stature have been eroded under a withering attack on its technical staff by the military and its contractors. Indeed, the Bush administration leadership at the EPA ultimately sided with the military.

After years on the defensive, the Pentagon -- with help from NASA and the Energy Department -- is taking a far tougher stand in challenging calls for environmental cleanups. It is using its formidable political leverage to demand greater proof that industrial substances cause cancer before ratcheting up costly cleanups at polluted bases.

The military says it is only striving to make smart decisions based on sound science and accuses the EPA of being unduly influenced by left-leaning scientists.

But critics say the defense establishment has manufactured unwarranted scientific doubt, used its powerful role in the executive branch to cause delays and forced a reduction in the margins of protection that traditionally guard public health.

If the EPA's 2001 draft risk assessment was correct, then possibly thousands of the nation's birth defects and cancers every year are due in part to TCE exposure, according to several academic experts.

"It is a World Trade Center in slow motion," said Boston University epidemiologist David Ozonoff, a TCE expert. "You would never notice it."

Senior officials in the Defense Department say much remains unknown about TCE.

"We are all forgetting the facts on the table," said Alex A. Beehler, the Pentagon's top environmental official. "Meanwhile, we have done everything we can to curtail use of TCE."

But in the last four years, the Pentagon, with help from the Energy Department and NASA, derailed tough EPA action on such water contaminants as the rocket fuel ingredient perchlorate. In response, state regulators in California and elsewhere have moved to impose their own rules.

The stakes are even higher with TCE. Half a dozen state, federal and international agencies classify TCE as a probable carcinogen.

California EPA regulators consider TCE a known carcinogen and issued their own 1999 risk assessment that reached the same conclusion as federal EPA regulators: TCE was far more toxic than previous scientific studies indicated.

TCE is the most widespread water contaminant in the nation. Huge swaths of California, New York, Texas and Florida, among other states, lie over TCE plumes. The solvent has spread under much of the San Gabriel and San Fernando valleys, as well as the shuttered El Toro Marine Corps base in Orange County.

Developed by chemists in the late 19th century, TCE was widely used to degrease metal parts and then dumped into nearby disposal pits at industrial plants and military bases, where it seeped into aquifers.

The public is exposed to TCE in several ways, including drinking or showering in contaminated water and breathing air in homes where TCE vapors have intruded from the soil. Limiting such exposures, even at current federal regulatory levels, requires elaborate treatment facilities that cost billions of dollars annually. In addition, some cities, notably Los Angeles, have high ambient levels of TCE in the air.

An internal Air Force report issued in 2003 warned that the Pentagon alone has 1,400 sites contaminated with TCE.

Among those, at least 46 have involved large-scale contamination or significant exposure to humans at military bases, according to a list compiled by the Natural Resources New Service, an environmental group based in Washington.

The Air Force was convinced that the EPA would toughen its allowable limit of TCE in drinking water of 5 parts per billion by at least fivefold. The service was already spending $5 billion a year to clean up TCE at its bases and tougher standards would drive that up by another $1.5 billion, according to an Air Force document. Some outside experts said that estimate was probably low.

After the EPA issued the draft assessment, the Pentagon, Energy Department and NASA appealed their case directly to the White House. TCE has also contaminated 23 sites in the Energy Department's nuclear weapons complex -- including Lawrence Livermore National Laboratory in the Bay Area, and NASA centers, including the Jet Propulsion Laboratory in La Canada Flintridge.

The agencies argued that the EPA had produced junk science, its assumptions were badly flawed and that evidence exonerating TCE was ignored. They argued that the EPA could not be trusted to move ahead on its own and that top leaders in the agency did not have control of their own bureaucracy.

Bush administration appointees in the EPA -- notably research director Paul Gilman -- sided with the Pentagon and agreed to pull back the risk assessment. The matter was referred for a lengthy study by the National Academy of Sciences, which is due to issue a new report this summer. Any

resolution of the cancer risk TCE poses will take years and any new regulation could take even longer.

The delay tactics have angered Republicans and Democrats who represent contaminated communities, where residents in some cases have elevated rates of cancer and birth defects but no direct proof that their illness is tied to TCE.

Half a dozen members of Congress last year wrote to the EPA, demanding that it issue interim standards for TCE, instead of waiting years while scientific battles are waged between competing federal agencies. EPA leaders have rejected those demands.

"The evidence on TCE is overwhelming," said Dr. Gina Solomon, an environmental medicine expert at UC San Francisco and a scientist at the Natural Resources Defense Council. "We have 80 epidemiological studies and hundreds of toxicology studies. They are fairly consistent in finding cancer risks that cover a range of tumors. It is hard to make all that human health risk go away."

But Raymond F. DuBois, former deputy undersecretary of Defense for installations and environment in the Bush administration, said the Pentagon had not been willing to accept whatever came out of the EPA, though it cared a great deal about base contamination.

"If you go down two or three levels in EPA, you have an awful lot of people that came onboard during the Clinton administration, to be perfectly blunt about it, and have a different approach than I do at Defense," DuBois said. "It doesn't mean I don't respect their opinions or judgments, but I have an obligation where our scientists question their scientists to bring it to the surface."

The military has virtually eliminated its use of TCE, purchasing only 11 gallons last year, said Beehler, an attorney who used to head environmental affairs for Koch Industries Inc., a large industrial conglomerate in Wichita, Kan.

In its fight against the 2001 risk assessment, the Pentagon has gone to the very fundamentals of cancer research: toxicology, the study of poisons; and epidemiology, the science of how diseases are distributed in the population. This scientific approach has worked better than past arguments that cleanups are a costly diversion from the Pentagon's mission to defend U.S. security.

A few months after the 2001 draft risk assessment came out, an Air Force rebuttal charged that the EPA had "misrepresented" data from animal and human health studies.

It said "there is no convincing evidence" that some groups of people, like children and diabetics, are more susceptible to TCE, a key part of the EPA's report. And it said the EPA had failed to consider viewpoints from "scientists who believe that TCE does not represent a human cancer risk at levels reasonably expected in the environment."

But comments such as these are outside the scientific mainstream. Other federal agencies have also expressed grave concern about TCE and some experts say it is only a matter of time before the chemical is universally recognized as a known carcinogen.

"Do I think TCE causes cancer? Yes," said Ozonoff, the Boston University TCE expert. "There is lots of evidence. Is there a dispute about it? Yes. Whenever the stakes are high, that's when there will be disputes about the science."

The 2001 risk assessment found TCE was two to 40 times more likely to cause cancer than was found in an assessment conducted in 1986, a wide range that reflected many scientific uncertainties. Because cancer risk assessments are not an exact science, federal regulators have historically exercised great caution in protecting public health.

The California EPA, the nation's largest and best-funded state environment agency, assessed TCE in 1999 and also found reason for concern. Its risk assessment fell in the middle of the EPA risk range, according to the study's author, Joseph Brown.

Rodents fed TCE develop liver and kidney cancer, and humans exposed to TCE show elevated rates of many types of cancer and birth defects. But industry experts fire back that evidence on TCE is still weak. Just because rats and mice get cancer from high levels of TCE doesn't prove that humans will get cancer from low levels of TCE, they say. And the epidemiological research is less convincing than animal studies, they say.

The U.S. still uses about 100 tons of TCE annually, a fraction of the consumption before the mid-1980s, when it was first classified as a probable carcinogen. It was once widely used in consumer products, such as correction fluid for typewriters and spot cleaners.

"If TCE is a human carcinogen, it isn't much of one," said Paul Dugard, a toxicologist at the Halogenated Solvents Industry Alliance Inc., which represents TCE manufacturers. "People exposed at low levels shouldn't be concerned.

"EPA's philosophy is still one of being super conservative and that is being pushed back against."

EPA officials were braced for such a controversy when the TCE assessment was issued and quickly convened a scientific advisory board to review the work. The board included public health officials at state agencies, academics and chemical industry scientists.

About one year later, the board issued its findings, praising the risk assessment and urging the EPA to implement it as quickly as possible. But the board also suggested some changes, including stronger support for its calculations of TCE's health risks and a clearer disclosure of its underlying assumptions.

The report, particularly the request for additional work, was interpreted as a serious problem by Gilman, the EPA research director.

He said the board's findings represented a "red flag" and "raised very troubling issues," all of which were key arguments by Gilman and others for stopping the assessment.

But members of the scientific advisory team dispute Gilman's interpretation, saying they felt the 2001 risk assessment was good science and their recommended changes amounted to normal commentary for such a complex matter.

"I thought by and large we supported the EPA and that its risk assessment could be modified to move forward," said Dr. Henry Anderson, the chairman of the scientific advisory board and a physician with the Wisconsin Division of Public Health. "That movement to shuttle the issue to the National Academy of Sciences was nothing like what we had in mind."

By 2004, the matter was out of the EPA's hands. The National Academy of Sciences received a $680,00 contract from the Energy Department to study TCE -- a decision dictated by a working group at the White House. The briefings to the national academy on how to evaluate TCE were given by White House staff as well as the EPA.

The White House originally formed the working group -- made up of officials from the Pentagon, Energy Department and NASA -- in 2002 to combat the EPA's assessment of another pollutant, perchlorate. That group stayed in business to fight the TCE risk assessment. The group was co-chaired by officials in the Office of Management and Budget and the White House Office of Science and Technology Policy. The officials declined requests for interviews.

Given the controversy and stakes involved, the issue was bound to end up with National Academy of Sciences, said Peter Preuss, director of the National Center for Environmental Analysis, the EPA organization that produced the 2001 risk assessment. "It got very difficult to proceed," Preuss said.

The lead author of the 2001 health risk assessment, V. James Cogliano, agreed that the findings ran into trouble when Defense Department officials went to the White House. "Most of it was behind the scenes," said Cogliano, now a senior official at the International Agency for Research on Cancer in Lyon, France.

He added: "The degree of opposition was not surprising given the degree of economic interests involved."

The political maneuvering marked a significant change, Cogliano said. In the 1980s, Defense Department officials accepted every possible safeguard recommended by the EPA for incinerators to burn nerve gas and other chemical weapons, he recalled.

At that time, Defense Department officials said, "You put in every margin of safety, because we want to be sure it will be safe," he said. "There was no argument. There is a different spirit today."

Every health risk assessment is also getting more technically complex and more bureaucratically difficult, Preuss said.

When the EPA issued its first health risk assessment in 1976, it ran four pages and it was based in large part on studies that counted "bumps and lumps" on animals subjected to possible

carcinogens. By contrast, EPA scientists now must show not only that a substance causes tumors, but the internal biological processes that are responsible. And the work is subject to greater scrutiny.

"It is true that there is more interagency review now of our work," Preuss said. "We have a couple steps where we send our assessments to the White House and they distribute them to other agencies. Each year, additional steps are taken."

All of the EPA's travails -- the toughened scientific demands, the loss of authority, the interagency battles -- have clearly taken a heavy toll and diminished the agency's stature.

"Inside the Beltway, it is an accepted fact that the science of EPA is not good," said Gilman, now director of the Oak Ridge Center for Advanced Studies in Tennessee, which conducts broad research on energy, the environment and other areas of science. Gilman said an entire consulting industry has sprung up in Washington to attack the EPA and sow seeds of doubt about its capabilities.

The delays in assessing TCE have also left many contaminated communities with few answers.

"My constituents who live at a recently named Superfund site ... are forced to live everyday with contaminated groundwater, soil and air and can't afford to wait the years it would take for the results of your outsourced re-review," Rep. Sue W. Kelly (R-N.Y.) told EPA officials at a hearing last year.

"I have talked to a lot of sick people," said Rep. Maurice D. Hinchey (D-N.Y.), whose district includes hundreds of homes contaminated by TCE vapors, traced to an IBM Corp. factory. IBM has paid for air filtration systems for 400 homes, but has balked at more funding based on uncertainty over the health risk. "These people are deeply frustrated and increasingly angry," Hinchey said.

Meanwhile, many environmentalists are discouraged by what they view as a virtual emasculation of the EPA in this battle.

"The general public has no idea this is happening," said Erik Olson, a lawyer at the Natural Resources Defense Council. "The Defense Department has succeeded in undermining the basic scientific process at EPA. The DoD is the biggest polluter in the United States and they have made major investments to undercut the EPA."

Los Angeles Times March 30, 2006

San Gabriel Valley a Hotbed of TCE Contamination; Los Angeles and Santa Clara counties are the most tainted from the toxic industrial solvent.

Trichloroethylene contamination has hit almost every state, but none more widely than California. TCE has contaminated water supplies, indoor air near cleanup projects and the air in cities all around the state.

The Environmental Protection Agency has 67 Superfund sites in California with TCE contamination, and state agencies have dozens more, stretching from the shores of the Pacific Ocean to the scrub of the Mojave Desert.

Almost every major military base has a Superfund site with TCE contamination, including Camp Pendleton and Edwards Air Force Base. The Superfund program involves some of the most contaminated sites, usually at dumps, former military bases or closed industrial facilities. TCE was used by the military to degrease metal.

The federal government permits no more than 5 parts per billion of TCE in water. In California, 243 wells have reported violations of the 5-ppb standard from 1997 to 2004, according to California Department of Health Services. Many of those wells have been shut down. In some cases, water agencies use cleaner supplies to dilute the TCEcontaminated water.

The biggest areas of pollution are Los Angeles and Santa Clara counties.

More than 30 square miles of the San Gabriel Valley, about 18% of it, lie in one of four Superfund sites in which the main contaminants are TCE and its close chemical cousin perchloroethylene, or PCE, a dry-cleaning agent. Much of the contamination has been traced to defense contractors. Among the cities affected by the contamination are Azusa, West Covina, City of Industry, El Monte and Alhambra.

The contaminated aquifer in the San Gabriel Valley supplies water for more than 1 million residents, though that water tapped by local agencies must meet the federal and state safety limit of 5 parts per billion, according to the Los Angeles Regional Water Quality Control Board.

A cleanup effort over the last 20 years has cost $120 million and will continue for decades, according to Kathleen Salyer, a Superfund manager at the EPA. The operation pumps and filters 37 million gallons of polluted water at Whittier Narrows every day, ensuring it meets the 5-parts-per-billion TCE standard.

The San Fernando Valley is also over a large TCE plume that is grouped into three separate Superfund sites that have cost $150 million to clean up so far. The plume extends for four miles and contaminates water supplies for 800,000 residents.

Much of the pollution was traced to the former Lockheed Corp. Click for Enhanced Coverage Linking Searchesaircraft facilities in Burbank. Major litigation during the 1980s and 1990s, in which residents claimed they were poisoned, was settled out of court or dismissed. The pollution has forced water agencies to abandon half of their wells in the area. Although TCE still affects city development projects, Burbank Vice Mayor Todd Campbell said the pollution no longer stirred up significant community activism.

The California Department of Toxic Substances Control runs 40 military base cleanup projects in Southern California, about half of which involve TCE contamination, said John Scandura, who works in the agency's office of military facilities.

The former El Toro Marine Base in Tustin, which is being redeveloped into a regional park and luxury housing, is among those cleanup projects. About 900 acres of heavily contaminated land will remain under Navy control for future cleanup.

The effort at Tustin mirrors plans around the country to build homes and office complexes close to contamination sites. One hitch with such redevelopment is the potential for high concentrations of TCE vapors that can permeate indoor air. A 2001 EPA draft risk assessment would have established tight limits on cleanups if such vapors were found inside homes.

The assessment suggested that individuals faced an elevated risk of cancer at TCE vapor levels from 0.017 to 1.7 micrograms per cubic meter, a level that is often exceeded in homes near TCE contamination sites, said Lenny Seigel, director of the Center for Public Environmental Oversight in Mountain View. TCE can vaporize from the ground and seep into homes through foundations.

To reduce such indoor air pollution, the EPA has already tightened cleanup requirements at some Superfund sites and forced polluters to pay for ventilation systems to purify indoor air.

Rochester Democrat and Chronicle April 16, 2007

Victor voices vapor qualms

Victor homeowners, concerned about a mile-long plume of tainted groundwater in a western portion of the town, on Sunday implored a state senator to ensure that the state's response to the contamination is quick and thorough.

State Sen. Michael Nozzolio met for three hours Sunday with about two dozen current and past homeowners at the Victor home of Michael Barry, a Dryer Road resident who first discovered in 1999 that his well water was contaminated by trichloroethene, or TCE.

Highlighted during the discussions, Nozzolio said afterward, was the residents' concern about the outcome of tests of water and possible "vapor intrusion" into their homes from the underground solvents.

The {dcidc}Democrat and Chronicle reported on March 25 that the groundwater beneath an area of western Victor had been contaminated for many years by toxic solvents. Those solvents have spread in a mile-long underground plume and were discovered in several private wells. Many residents were not informed of the pollution.

While state health and environmental officials have given a number of homes a clean bill of health after recent tests, some homeowners said they need more information to decipher the results, said Nozzolio, R-Fayette, Seneca County.

"They need to have assistance in interpreting that information," he said.

Last week, state officials announced that they'd completed vapor testing in 24 Victor homes and decided only one needed ventilation to remove potentially toxic vapors from the household — a measure similar to that used to eliminate radon in a home.

Officials determined that seven more would be retested in about a year to see whether the vapor levels had changed.

Dryer Road resident Linda Turner said after Sunday's meeting that residents were able to raise the issues they'd hoped to and that Nozzolio left with a list of issues to press with state Department of Environmental Conservation and Department of Health officials.

The Press Enterprise April 21, 2007

SCHOOL AIR TESTS FIND NO DANGER

Contamination: When Vinyl Chloride Gas Isn't Found On Two Campuses, Attention Returns To Norco High.

Parents, students and teachers can breathe easier, knowing that common construction materials are not releasing a cancer-causing gas into classrooms, officials with the Corona-Norco Unified School District said Friday.

Preliminary test results from indoor air samples taken at Corona High School and El Cerrito Middle School do not show levels of the carcinogen vinyl chloride, said Ted Rozzi, the district's assistant superintendent for facilities. The tests commissioned by the district last month were the first major efforts nationwide to test vinyl tiles, carpets and wall coverings for links to cancer-causing indoor pollution in public buildings. If the district had found traces of vinyl chloride in the air, the findings would have had major public-health effects.

This week's findings suggest that there is not a widespread health threat from building materials, but it also leaves school and state officials wondering why vinyl chloride gas has been found in the air at Norco High School.

"This is good news. I'd rather be dealing with a unique situation at one school than to discover that we have a widespread problem," said school board member Bill Hedrick. "We're back to wrestling with why (the contamination) is at Norco High School."

The findings were pretty predictable, said Hedrick, who has long maintained that the indoor air pollution is likely linked to underground contamination from the nearby Wyle Labs hazardous-waste site.

The California Department of Toxic Substances Control found the contamination at Norco High while investigating pollution from Wyle Labs, which is across the street from the school.

Wyle Labs, which closed two years ago, tested military products, electronics and parts for rocket engines and space shuttles at the site for about 47 years.

The state had traced a plume of soil and groundwater pollution from Wyle to the surrounding residential neighborhood and below portions of the high school. Trichloroethylene, also known as TCE, is the main contaminant in the plume. TCE, a banned industrial solvent, breaks down into vinyl chloride, and that fact led state officials to suspect that the underground plume could be linked to the indoor air gas.

However, state officials were unable to link the school's indoor pollution to the plume, prompting them to speculate that the building materials were to blame.

The district ran tests at the two other schools because they have buildings that were erected about the same time as the affected building at Norco High School using the same materials.

Working with state officials, the district plans to continue testing at Norco High School to find the source of the problem, said Rozzi. They will test indoor air in the school's science building early next month to see whether the building's ventilation system is properly dispersing the gas, he said.

In June, the state will conduct another round of underground testing to try to link the plume to the indoor air pollution.

Susie Wong, a spokeswoman for the Department of Toxic Substances Control, said department officials have not yet seen the test results from Corona High and El Cerrito Middle schools and cannot comment on them.

Although officials are no closer to identifying the cause of the problem at Norco High School, Hedrick says he has no regrets about spending the time and energy testing the building materials in other schools.

"We bring all of these students together, and I think we need to have a high standard to ensure their safety," he said. "(Vinyl chloride) is not a chemical you want around if you can avoid it. I think we will continue to try to mitigate it and discover the cause."

The levels of vinyl chloride inside Norco High School are not high enough to pose a health risk to students, but they could slightly increase the cancer risk to employees who work in the contaminated areas for decades, said state officials overseeing the Wyle cleanup effort.

In all likelihood, the indoor air contamination is coming from the plume, said Mike Schade, the polyvinyl chloride campaign coordinator for the Center for Health, Environment and Justice. The center is a nonprofit organization that works with communities dealing with hazardous building materials as well as waste sites where underground pollution seeps indoors by a process called vapor intrusion.

Schade called on state and school district officials to continue investigating the source of contamination at Norco High School in order to eliminate it.

The Columbian May 9, 2007

Fruit Valley groundwater on mend

While Fruit Valley residents sleep, a tainted plume of groundwater underlying their west Vancouver neighborhood steadily gets a little less hazardous.

That was the message the Port of Vancouver shared with residents during a pair of neighborhood meetings and tours last week. Port officials wanted to bring residents up to date on the cleanup of groundwater pollution severe enough to cause vapors of trichloroethylene to waft into six homes at higher-than-expected levels.

Cadet Manufacturing, which continues to produce electrical heaters at 2500 W. Fourth Plain Blvd., used TCE as a degreasing agent until 1976.

"The good news is, the concentrations are dropping," Richard Roche, a hydrogeologist working for Portland-based contractor Parametrix, told a dozen residents who gathered at the Fruit Valley Community Center on Friday.

Last year, the port struck an agreement with Cadet to acquire its property and take over treatment of groundwater polluted by trichloroethylene, an industrial solvent suspected to cause cancer.

Beyond the concern for residents living above the tainted plume, officials are equally worried about the plume affecting a huge aquifer in the Vancouver Lake lowlands. Clark Public Utilities is already eyeing the aquifer as a major source of drinking water to serve a growing population.

Although the plume is migrating away from the deeper regional aquifer, officials want to contain the TCE-tainted groundwater and eliminate it as a threat.

"Because this is so widespread, it's going to take a long time to clean up," said Patty Boyden, the port's environmental services director.
The pollution primarily comes from operations at the former Swan Manufacturing site beginning in 1956 and, later, at Cadet across the street. The TCE-tainted plume came to light in 1997 when the city of Vancouver prepared to extend Mill Plain Boulevard over the railroad tracks and into the port.

The port, ending a long legal wrangle with a $24 million settlement with Cadet, took over management of seven groundwater treatment wells and associated pump houses installed by Cadet beginning in 2004.

The wells operate on a recirculating system in which the tainted water is treated with a liquid oxidizing compound and reinjected back into the ground. The pumps treat 400 gallons of groundwater per minute.

Meanwhile, the port continues to operate vacuum systems in six homes identified with relatively high levels of TCE vapor in the ambient air.

"I like the Fruit Valley neighborhood," said Tina Leahy, who moved to the area with her husband, Thomas, and children in 2002. "I like the schools, and I think the port is doing all they can to clean it up."

U.S. Newswire May 16, 2007

DEP Orders Accelerated Cleanup of Delaware County Gas Station

The Department of Environmental Protection this week ordered Getty Realty Corp. Click for Enhanced Coverage Linking Searchesand Getty Petroleum Marketing to investigate and correct soil and groundwater contamination from three underground storage tanks at the Getty gas station, located at 2100 Market St., Linwood, Upper Chichester Township, Delaware County.

"Residents of this community need to be assured that an aggressive and immediate cleanup is under way that protects them from any potential harm," said Joseph Feola, DEP southeast regional office director. "This order outlines a course of action with strict deadlines for the company to demonstrate progress in addressing the contamination issues from its underground tanks."

The Linwood Getty station has a history of leaks from its underground tanks but it has taken steps to remediate the soil and groundwater.

In December 1994 and September 2001, the department received notification of unleaded gasoline releases underground that were found in the soil and groundwater. The station has been undergoing cleanup from these releases.

Last March, a tank truck spilled 75 gallons of gas during a product delivery that spread beyond the property.

If the site characterization report does not demonstrate compliance under Act 2, the Land Recycling and Environmental Remediation Standards Act, Getty will be required to submit a remedial action plan.

The administrative order also makes provisions for monitoring and mitigating air quality issues. Many homes have been monitored for petroleum vapors since 2005. In June of that year, DEP received the results of indoor air sampling tests that were conducted at two residences near the station. The sampling tests found an elevated level of benzene, a gasoline additive and known carcinogen, in one of the homes.

The department recommended that Getty install a ventilation system in the affected residence and closely monitor the air quality in the second home.

In April of this year, additional air testing was conducted in the affected residence. Those tests also found benzene in the basement and second floor of the home. Testing outside of the home showed the ambient concentration was lower than the concentration inside the home.

The administrative order directs the company to continue to monitor vapors at the two residences with two more air samples, which are to be taken by May 18 and June 29. Getty must also investigate vapor intrusion to indoor areas through a soil gas survey by May 25.

DEP enforces corrective action cleanups from regulated storage tanks under state and federal laws. One law, the Storage Tanks and Spill Prevention Act of 1989, significantly raised the performance standards for gas stations across Pennsylvania.

Rochester Democrat and Chronicle May 17, 2007

Victor to get aid for vapor shields

Stepping in where New York's executive branch has not, a state senator pledged to provide a $50,000 grant to pay for health-related work in a portion of Victor beset by contaminated groundwater.

State Sen. Michael Nozzolio said Wednesday that the money would pay for testing and for installation of home ventilation systems to protect against intrusion by toxic vapors.

Emergency legislative funding is needed because existing guidelines do not allow the state Department of Environmental Conservation to do the work, said Nozzolio, a Republican from Fayette, Seneca County, who represents Victor in the state Senate.

His funding, which will be routed through the town of Victor, will "fill in the gap."

Nozzolio's grant, which he said would come from "member item" funds allocated for discretionary use in his district, represents the latest development in an ongoing debate about the state's response to the soil-vapor issue.

Beginning several years ago, the DEC and state Department of Health have devoted considerable attention to the possibility that toxic vapors from underground chemical contamination could rise through the soil and accumulate in the basements of buildings. Though basement vapor levels at contaminated sites typically are quite low, health officials worry that even very small concentrations of some chemicals most notably, trichloroethene, or TCE may be harmful to people who inhale them.

Indoor testing for vapors began this February in an area of western Victor because of concerns about a plume of groundwater tainted with trichloroethene and other industrial solvents that was first discovered there in 1990. A {dcidc}Democrat and Chronicle investigation revealed in March that in the intervening 17 years the DEC had not resolved the contamination problem.

In Victor, as in other parts of the state with soil-vapor concerns, the DEC and Health Department used test results to determine whether a home was threatened enough to merit installation of a ventilation system that would collect vapors before they could enter the basement.

The agencies employ a decision-making grid that takes into account the level of toxic vapors found both under the basement slab and inside the home. If levels are very high in either location, or moderately high in both, then ventilation is installed at state expense.

But the state's approach has been criticized at times.

A report last year by the state Assembly Committee on Environmental Conservation said the agencies should install vapor mitigation systems more liberally. Citizens in affected areas including Victor have questioned whether the decision-making grid should be amended.

Results from the first 24 homes tested in Victor, released last month, showed toxic vapors present under the basements of 19 of those homes in widely varying levels.

State officials recommended ventilation systems in two of the homes.

Nozzolio said he thought the vapor-intrusion guidelines could stand amendment and that he hoped to address those inequities through his stop-gap funding.

"One house may have been tested and required immediate mitigation, and the test results are well within the soil-vapor guidelines," he said. "The house next door may find that their air is all right but their water is contaminated. What we tried to do is say this is not a static situation."

The state grant could pay for installation of ventilation systems at an unspecified number of additional homes, and for testing of water and indoor air. Some Victor residents have complained that they were passed over during several rounds of indoor air tests.

Victor Supervisor Leslie Bamann said the town would be a conduit for the funds but would rely on others to determine precisely how the money was used.

"We are awaiting, as a town, direction from the state both the senator and the DEC about how and under what criteria these funds will be released," Bamann said Wednesday.

Nozzolio said he has worked to make the money available as quickly as possible, and said funds should reach the town in a few weeks.

The senator said he did not intend to criticize the DEC.

"We're very pleased with the extent to which DEC has been able to focus on the problem at hand," he said, adding that he expected the agency would provide ample funding to locate the source of the solvents and clean up the site. "But until that's done, this becomes a moving target."

Judith Enck, who is Gov. Eliot Spitzer's deputy secretary for the environment, said she wasn't aware of Nozzolio's funding but saw no problem with it.

"If people want to err on the side of caution, they're certainly free to install vapor recovery devices even if it doesn't meet the (state) regulatory threshold.

"People need to take steps to give them a level of comfort. But in no way does it challenge the existing regulatory numbers that are there and are based on protecting the public health and environment," Enck said.

"To me this is good news for the people in the plume," said Michael Barry, one of the leaders of a citizens group that has formed in the area.

The group has been working with Nozzolio to get additional support for work at the site.

Barry, who noted there are numerous Victor residents who believe they merit a vapor mitigation system, testing or other state aid, said he hoped Nozzolio's action would inspire a liberalization of state policies on vapor intrusion remedies.

"What he's going to do for us could be an acceptable approach for other places in New York. That's good news for a lot of people," he said.

Omaha World-Herald June 5, 2007

EPA wants all NoDo residences to be up a level

Some of the condos, apartments and other living quarters in the heart of the trendy redevelopment of Omaha's north downtown will have to be on the second floor of buildings or higher, under restrictions the EPA is proposing.

Contaminated land in the NoDo area once used by Union Pacific Railroad is being cleaned up, but generally not to a level intended to accommodate residential development, according to Environmental Protection Agency documents.

However, because civic and business leaders have indicated that housing is essential to reviving the area, the EPA has created "contingent" cleanup standards to allow residential use, EPA project manager Ken Herstowski said.

"We don't want to hold up activities," Herstowski said.

The Union Pacific property -- about 110 acres -- is the largest remaining swath of land that has required cleanup for the NoDo corridor to develop. Smaller sites in the area also will require work for full redevelopment.

Union Pacific has spent $14 million cleaning up this land and about 100 adjacent acres. That work has included demolishing buildings, hauling off dirt and extracting diesel fuel from groundwater, said James Barnes, company spokesman.

The railroad, Barnes said, may end up spending several million dollars more as it works with the EPA to see that the land can be developed safely.

Steve Jensen, Omaha planning director, said the city faced a choice between idle land dotted with empty buildings or redevelopment. Once redevelopment became the goal, he said, residential units became an important part of the mix.

"It's a very large area -- you could put a lot of the downtown core into that area," he said. "To really make that area as interesting and vibrant as you can, residential needs to be part of it."

Over approximately 100 years of use by U.P., the land became contaminated with heavy metals, volatile organic chemicals, asbestos and other substances. Groundwater also was contaminated.

This cleanup is unrelated to the Superfund project the EPA has undertaken to remove leadcontaminated soil from thousands of Omaha yards. That contamination is believed to be related to industrial air pollution from the former Asarco lead refinery.

The EPA bases environmental cleanups on a property's future use. Residential developments have to meet the strictest cleanup standards.

The EPA has proposed two sets of cleanup standards for the Union Pacific property, which sits in the heart of the north downtown development area and near the area being discussed for a proposed baseball stadium.

The agency will take public comments on the plan until July 13. The agency has scheduled an informational meeting for the public today.

The first set of standards establishes guidelines for soil cleanup that allow for redevelopment into commercial, office or industrial properties but prohibits residential units.

This type of standard was used on former Union Pacific land at 13th and Cuming Streets, where two hotels are being built, and the land on which the Qwest Center Omaha was built.

A second, "contingent" set of standards would allow for residential development. These guidelines stipulate that soil must be cleaned to stricter standards and that housing units be put on the second floor or higher.

These types of restrictions were used on the former Union Pacific land that is being developed into the Saddle Creek Records project at 14th and Webster Streets. Apartments in the project are on the second floor, and an additional layer of leadcontaminated soil was removed from around the building.

With groundwater, the EPA is proposing that contamination be monitored. No additional active cleanup is being required unless a problem is found.

The guidelines also describe construction measures that can be taken to reduce the risk of harmful vapors leaking up from the soil into buildings. The EPA also may require that indoor air be monitored in buildings constructed above contaminants that vaporize easily.

The agency is not requiring such "vapor intrusion" monitoring at the two new hotels or Saddle Creek Records because the contaminants in the surrounding soil do not vaporize, Herstowski said. The Saddle Creek site had high levels of lead in the soil; the hotel sites were contaminated primarily with lead and arsenic.

Vapors are not believed to be a problem south of Seward Street, Herstowski said. To the north, it's "more of a mixed bag," he said.

A total of about 210 acres belonging to Union Pacific has been subject to EPA oversight in this area. Half already was cleaned up and transferred to the city under an expedited plan that allowed for construction of the Qwest Center.

The current cleanup plan applies to the 110 remaining acres.

Of that land, Barnes said, Union Pacific plans to continue using about 80 acres for rail operations, including the mostcontaminated property, former sludge pits. The EPA cleanup proposal lays the foundation for redeveloping this area, too, and the NoDo plan envisions some of this becoming an office park.

The two hotels under construction are on five acres, Barnes said, and 25 more acres are for sale by Union Pacific.

Sarasota Herald-Tribune June 22, 2007

Tallevast in need of more testing?

Environmentalists say not enough study has been done at contaminated site

TALLEVAST- Scientists and an environmental watchdog group are warning that there has not been enough testing of contaminated ground water around a former beryllium plant and that nearby residents may be exposed to polluted air inside their homes.

The warnings were made in documents filed with the state this week on behalf of FOCUS, a Tallevast community group. FOCUS leaders want the state to delay the cleanup of about 200 acres of contaminated ground water and order more testing to determine the extent of the pollution.

"They have not done a thorough investigation; I don't think they've yet found all the chemicals," said Wanda Washington, FOCUS vice president. "They've got to step backwards and do a thorough investigation."

The reports also warn that pumping so much ground water out of the aquifers could change the flow of water and further spread the contamination. Another concern is whether wells in the community have been properly sealed.

Lockheed Martin, Click for Enhanced Coverage Linking Searchesthe company responsible for cleaning up the contamination, is proposing to build a series of extraction wells and trenches to pump contaminated ground water into a treatment system and then discharge it into the county sewer system.

Cleaning up 90 percent of the pollution could take 30 years, Lockheed says. Completely cleaning the site may take 100 years. The company is waiting for the Florida Department of Environmental Protection to sign off on its plan.

The pollution at Tallevast was left behind by the former American Beryllium Co., which built parts for nuclear warheads for the federal government for nearly 40 years.

Lockheed bought the site in 1996 and shut down the plant. It later sold the property, but not before discovering soil and ground-water pollution.

In 2000, Lockheed notified county and state officials of the pollution. But residents, most of whom used well water, were not informed until almost four years later. Residents' homes have since been connected to the county drinking water system.

Pollutants present in the ground water include trichloroethylene, or TCE, which has been linked to liver and kidney cancer, and other ailments.

"Typically when you've got high levels of TCE in shallow ground water, you've got a vapor intrusion problem, and the burden of proof is on the state to show there's not," said Lenny Siegel, director of the Center for Public Environmental Oversight, a California-based environmental watchdog group.

Tampa-based Blasland, Bouck and Lee tested air quality in areas of Tallevast on behalf of Lockheed this year. That study and earlier ones have not found any evidence of air contamination, said Gail Rymer, Lockheed spokeswoman.

DEP officials said they had not had enough time to review the FOCUS documents but stand by a decision to move the cleanup project past the investigative phase.

"The science had shown us we had enough information to move forward into the remedial process," said the DEP's Pamala Vazquez. "We knew not all of the community's concerns were addressed. That's why we promised to make them an integral part of this process."

Rochester Democrat and Chronicle June 22, 2007

Victor pollution clues come up dry

Nearly two months into a hunt for the source of toxic chemicals that have tainted groundwater in Victor, state investigators have chased down rumors, sought out potential witnesses and picked up tantalizing clues.

But they haven't hit pay dirt. An explanation of how industrial solvents came to enter the groundwater decades ago and who put them there remains elusive.

"It's old enough in time that most of the people involved aren't around, and the people that have stories they don't make sense," said Lt. Michael Van Durme, who oversees the staff of Department of Environmental Conservation investigators on the case.

Trichloroethene and other toxic solvents were discovered in the groundwater in western Victor in 1990. State officials slowly traced the chemicals through the underground water supply, and test wells sunk in late 1999 found very high concentrations of the chemicals in one particular spot.

That hot spot was at the edge of property owned by Syracusa Sand & Gravel, and the DEC has suspected ever since that the chemicals were dumped or spilled at the gravel pit.

"The question is how much was put there, and by who?" said John Burke, a DEC investigator working the case.

Scott and Mark Syracusa, the third generation of their family to operate the mine, have told DEC they know nothing of any chemical dumping. They did not return a phone call Thursday.

Little had been done to track down the responsible party until three months ago, when a {dcidc}Democrat and Chronicle story focused attention on the contamination.

Then, suddenly, the town was awash in rumors about how the solvents came to be there.

Some residents began sleuthing on their own, and some of their leads reached the DEC's ears. At a public meeting in Victor on April 26, DEC officials and state Sen. Michael Nozzolio, R-Fayette, Seneca County, openly appealed for more tips. Several people queued up after the meeting to pass them on.

The following day, the agency assigned Burke to look into the matter.

Since that time, Burke has interviewed several dozen people and looked into countless anecdotes and rumors that young people who used to hang out on mine property saw chemical barrels there, that tanker trucks used to visit the site, that lights were seen late at night in the trees at the edge of the mine property.

A relative of a former mine employee who is now deceased told him the man "had had concerns about things buried out there. He had been told to dig a hole. He would leave work at the end of the day, and when he came back in the morning, the hole would be filled in," Burke said. The former employee also told his relative about barrels being present on the property at various times.

Others also mentioned seeing barrels there, though Burke said he's not sure what to make of those reports.

"A few drums leaking isn't going to cause what we had there," he said.

By analyzing the dispersion of the solvents through the groundwater, a DEC engineer once estimated that 1,000 gallons of solvents had entered the groundwater about 35 years ago.

Burke also learned that the Syracusas once operated a metal salvage operation in the northwest corner of the mine property. Old vehicles, demolished buildings and even railroad tank cars were trucked onto the site and chopped up. Nonmetallic debris was buried on the floor of the mine, Burke said.

Burke said he has no way of knowing if the railroad tankers or other containers brought for reclamation were empty.

Acting on tips, Burke has been trying to make contact with a man who reputedly has specific knowledge of waste disposal at the Syracusa site. But intermediaries have failed to help bring investigator and potential witness together. He's now awaiting answers to written questions sent to the man.

If the DEC were involved in a criminal investigation, Van Durme said, it could subpoena the reputed witness to testify before a grand jury. But there is no criminal investigation. If the dumping or spilling did constitute a crime at the time it happened, the statute of limitations has long since expired.

Tracking down the source of the chemicals remains important for several reasons. Specific knowledge of what was disposed of, and when, might help the DEC better understand how to clean up the solvents.

The agency also could demand that any company involved in generating or disposing of the waste help pay for study and cleanup of the site. DEC asked the Syracusa mine company to pick up the costs several years ago, but it declined, pleading poverty.

Residents of the area who feel they've suffered damages as a result of the contamination also might be able to sue the responsible parties. Stephen G. Schwarz, a Rochester lawyer who brings environmental tort cases and once consulted with a prospective client in Victor affected by the solvents, said residents would have one year from the date the responsible parties were uncovered to bring suit.

Several tips involved a trucking company, Red Bird Development, that was located during the 1980s and early 1990s on gravel mine property. The company, which filed for bankruptcy protection in 1995 and went out of business, was once licensed to haul hazardous cargoes.

But Burke said Red Bird mainly hauled sewage sludge and he found no evidence that it handled chemical wastes of the type in Victor's groundwater. Several ex-employees told him they knew nothing about dumping.

Burke also has run down and dismissed disjointed reports that the solvents could have come from a machine shop that he could never locate, as well as a one-time local print shop.

He now is searching for employees of another former local machine shop, where metal parts were made and solvents likely used.

New clues could come from testing at the gravel mine with devices that measure TCE and other chemical vapors in the soil, which Burke said is a quick way to find the point where concentrations are highest.

"This is an industrial solvent that's not used in a mining operation, and it's not used in agriculture. So how did it get there? It had to be brought there. Sampling will pinpoint the source where it was dumped, discharged, drained whatever you want to call it."

Excavation at the source spot might unearth material that helps pinpoint the origin of the solvents, he said.

The 170-acre parcel containing the sand and gravel mine, located east of Malone Road, was purchased by John Syracusa in 1953. After John died in 1969, son Donald Syracusa took over the mine. Donald died four years ago.

Burke said he has not tried to contact the Syracusa family because they've told other DEC officials they have no knowledge and because the brothers who run the operation, now 50 and 48 years old, would have been young when any dumping took place.

"I don't know what knowledge they would have," he said.

Newsday July 5, 2007

WHEN VAPORS SEEP: NEXT-DOOR DANGER

Toxic sites cause chemical reaction; As EPA and health officials check vapors spreading from tainted sites, residents worry about the health risks

When the Khanzadas bought their Franklin Square house in 2001, the family didn't realize it was next door to a Superfund site.

But a few years later, investigators with the federal Environmental Protection Agency came knocking. They were concerned that toxic vapors from the shuttered Genzale Plating Company next door were seeping into the basement of the two-story home on New Hyde Park Road.

In a series of events likely to become more common on Long Island, tests showed that air inside the Khanzadas' house and two others nearby had elevated levels of trichloroethylene - a common industrial degreaser used by machine shops and dry cleaners that is also a potential carcinogen.

The EPA put a carbon air filter in the basement and installed a vacuum system at the hazardous waste site to suck contaminated vapor from the soil. Six months later, they took the filter out and told the family everything was fine - an assurance the Khanzadas are taking on faith.

"The EPA is a big government organization," said Samir Khanzada, 26, whose father bought the house. "I don't think they would lie to us ... But they don't disclose much."

Emerging issue on LI

The problem is called vapor intrusion and it can occur when volatile chemicals spilled or dumped into soil and groundwater evaporate. As vapor, the chemicals move into adjacent soil and sometimes seep up into nearby buildings.

An emerging issue whose health implications are still far from clear, vapor intrusion has raised many new questions for public officials, residents near toxic waste sites and those who want to clean up "brownfields" - contaminated industrial or commercial properties - with an eye to future development.

Officials now think the phenomenon could pose a risk at or near dozens of Long Island hazardous waste sites once thought to be either cleaned up or close to it. Environmental and health officials with state and federal agencies are scrutinizing such sites now for vapor intrusion. They started with 122 in 2002 and 2003.

The federal government began re-checking 33 sites where it had a role in supervising clean-up. So far, vapor intrusion has been detected at seven sites and 18 others were cleared, said EPA regional Superfund head George Pavlou.

New York state had responsibility for another 89 sites. Its health and environmental conservation agencies have re-checked 10 of them. Another 46 sites are being evaluated, with the remainder to be done next year, according to the DEC.

Source of the problem

Vapor intrusion is commonly associated with chlorinated solvents such as trichloroethylene (TCE), perchloroethylene (PCE) and trichloroethane (TCA). Sometimes the chemicals came from dry cleaners or electronics manufacturers. Others leaked out of town landfills, or notorious Superfund sites such as Lawrence Aviation, a former Port Jefferson Station aerospace manufacturer whose owner has been indicted for dumping more than 11 tons of toxic waste on the property.

"If the groundwater is contaminated with TCE or other chemicals, the potential for them to migrate through the soil and into people's houses is real," Pavlou said.

All told, 30 systems to remove or block contaminated vapor - by sucking it out of the soil or filtering and venting inside air - have been installed across Long Island, according to the EPA

and the state Department of Environmental Conservation. Most are at commercial buildings; five are in Nassau County homes.

More seem likely to come: Four homes near the Lawrence Aviation site are scheduled to have systems installed, and air sampling continues at homes and businesses in both counties.

Criticizing the EPA

Sen. Charles Schumer highlighted concerns about vapor intrusion in a news conference last month at a Garden City Superfund site. Schumer said the EPA was too slow to update its TCE risk assessment; the agency said it is in the process of doing so.

Scientists used to think very high levels of contamination were required for chemicals to turn into vapor and enter buildings. But in recent years, evidence has shown that vapor intrusion can occur even when contaminant levels in groundwater are relatively low. For instance, in 2003, tests detected TCE and PCE vapors in about 450 structures near a former IBM facility in Endicott, N.Y. - despite local groundwater having been cleaned up to near drinking water standards.

Long Island accounts for nearly a quarter of the more than 500 sites in New York State being scrutinized for vapor intrusion. Officials suggest this could be due to Long Island's comparatively intense development, bustling post-war industrial base and even its geology. Once contaminants hit the water in Long Island's underground aquifers, they can travel feet, even miles, as pollutant plumes that can expose homes and businesses above to toxic chemicals if vapor intrusion occurs.

Health issues unclear

Mounting research suggests that TCE exposure is a potential cause of kidney cancer in humans and may be associated with reproductive and developmental problems. But a direct correlation between the level of exposure and the rate of disease has been difficult to establish, since studies must either test animals and extrapolate the results to humans, or track human response after exposure has occurred.

The EPA has yet to issue a standard for airborne TCE. In the interim, federal officials use a range - from .05 to 5 micrograms per cubic meter - to determine potential danger to humans. "The so-called lack of definitive standards for TCE has not prevented us in any way from applying the best credible science," Pavlou said.

In New York, the state health department has established its own TCE air guideline of 5 micrograms per cubic meter - the high end of the range the EPA uses, but lower than levels that have caused health effects in animals and humans, according to a department fact sheet.

New York "is pretty much leaps and bounds beyond the federal government" on vapor intrusion, said DEC spokeswoman Maureen Wren.

But questions remain, even as officials move to declare some sites trouble free and others in need of remediation. Among other techniques, contractors seal cracks or keep vapor at bay by raising indoor air pressure through the placement of PVC venting pipes and fans.

Such measures are affordable and relatively simple to install, said Miriam Villani, a former EPA attorney and environmental counsel for Farrell Fritz, a Uniondale law firm. "But how long do you operate that for? We just don't know," Villani said. "If you stop it, will it come back over time?"

And some doubt these fixes will prevent people from becoming sick in the future.

What investigators look for

If you live near a site where volatile chemicals have contaminated groundwater or soil, you may expect a knock on your door from investigators looking into vapor intrusion there.

Typically, investigations are initiated by state or federal officials. In New York, the state health and environmental agencies rechecking hazardous waste sites where TCE, PERC and other volatile chemicals have been found to prioritize sites using the following criteria: the concentration of pollutants, how far below the surface the contamination lies, soil characteristics, and land use at and near the site above the impact soil or groundwater.

First, investigators take stock of building conditions, such as the type of heating system and whether other possible sources of volatile chemicals are present. Household items such as paint cans, new carpet and even recently dry-cleaned clothes are more often a source of indoor air pollution than vapor intrusion, according to the state health department.

Then investigators check contaminant levels in soil vapor, the gas between soil particles. The soil directly beneath a building will also be sampled to gauge the likelihood of current and future exposures - if cracks develop in a foundation or if changes to heating and cooling systems might lower indoor air pressure and allow vapor to seep in.

Indoor air samples are collected in the basement or lowest floor of a building, then compared with soil tests and outside air samples.

If soil vapor contamination or soil vapor intrusion is detected, officials may begin ongoing monitoring of the site, or take steps to mitigate the problem. Mitigation can include sealing cracks in the foundation, adjusting climate-control systems to maintain positive air pressure, or installing a sub-slab depressurization system to prevent vapor from entering a building.

Costs are generally covered by the party cleaning up the contamination or by the state if no responsible party can be found. For more information about soil vapor intrusion, or to report suspected intrusion, call the New York State health department's bureau of environmental exposure investigation at 800-458-1158, ext. 27850.

Status of the sites

122 total Long Island sites being evaluated by state DEC and federal EPA

EPA sites (33)

Cleared 18

Still under review 15

State DEC sites (89)

Still under review 46

Have been rechecked 10

To be checked in 2008: 33

New York Times July 18, 2007

Suit Seeks Belated Cleanup Of a 57-Year-Old Oil Spill

The New York State attorney general's office filed a lawsuit yesterday against Exxon Mobil and four other companies to force them to clean up a 57-year-old oil spill that has polluted the soil beneath Greenpoint, Brooklyn, and left traces of toxic chemicals in nearby Newtown Creek.

The spill -- said to be originally almost twice as large as the Exxon Valdez disaster, which dumped 11 million gallons of oil off the Alaskan coast in 1989 -- resulted from an industrial explosion in 1950. It went undiscovered until 1978, when the Coast Guard found a subterranean pool that contained an estimated 17 million gallons of oil products.

In the lawsuit, filed in Federal District Court in Brooklyn, the attorney general, Andrew M. Cuomo, said he is seeking to compel Exxon Mobil and the other companies to speed up the cleanup and to force them to pay millions of dollars in fines. Also named in the suit are BP, Chevron, KeySpan and Phelps Dodge.

For years, Greenpoint residents have wondered whether state environmental officials or the companies would finally clean up the spill, which occurred at an oil refinery and storage facility on the Brooklyn-Queens border. In 2004, Riverkeeper, an environmental group, filed its own lawsuit against Exxon Mobil. The following summer, soil tests performed by the group found toxic fumes coming from the ground above the spill. That prompted a second lawsuit by about two dozen Greenpoint residents. Both suits are pending.

The state's lawsuit is a sharp turnaround in its handling of the spill. A 1990 agreement between state environmental officials and Mobil Oil -- which merged with Exxon in 1999 -- required the company to recover the spilled oil, but it specified no deadline and required no cleanup of either the creek or the polluted soil under Greenpoint. In February, the attorney general's office

indicated a change of policy was at hand by sending Exxon Mobil and the four other companies a notice of its intention to sue.

About eight million gallons of oil and petroleum byproducts -- including benzene, arsenic and lead -- are believed to remain underground, and soil tests have revealed that the spill has released toxic vapors in the neighborhood.

Mr. Cuomo said the spill was nearly twice the size of the one created by the Exxon Valdez accident. He added that the oil seeps from the bulkheads of the former oil facility into the three-and-a-half-mile-long Newtown Creek and then into the East River.

"It's amazing this situation has gone on as long as it has," Mr. Cuomo said in an interview. "It's been allowed to exist for decades."

In the almost 30 years since the spill was discovered, the companies have made no progress in treating the contaminated soil, Mr. Cuomo said, and they have not addressed the contamination in Newtown Creek. Beyond fines and a faster cleanup, the suit seeks scientific testing and investigations to determine the scope of the environmental contamination, cleanup of contaminated groundwater and soil and the restoration of Newtown Creek.

Barry Wood, a spokesman for Exxon Mobil,said yesterday that company officials had not seen the suit and could not comment on its specific charges. In the past, Exxon Mobil has said that it has helped to recover more than 9.3 million gallons of oil and oil byproducts from the spill and that it takes its responsibilities seriously under the 1990 agreement with the state.

Basil B. Seggos, chief investigator for Riverkeeper, said the state's lawsuit is "a fairly dramatic step forward."

"It demonstrates the state is prepared to hold Exxon accountable for its misdeeds and reverse 30 years of inaction," he said. "We look forward to working with the attorney general."

Press & Sun-Bulletin July 19, 2007

State makes TCE site a priority

Ex-bottling plant listed as requiring action

ENDICOTT A former Canada Dry bottling plant at 2 and 7 Badger Ave. has been added to the state's list of environmental priorities after officials found high levels of TCE persisting in the ground.

The site has been a known problem since the mid-1990s, when engineers found subterranean pollution before it was sold to the current owner, ICS Industries. But the property, in the middle of a commercial and residential neighborhood, was recently designated as "Class 2" on the state's hazardous waste registry, which means it poses a significant threat to public health or the environment and requires action.

Exposure to TCE has been linked with illnesses ranging from cancer to brain damage, although there is ongoing debate over what levels are dangerous. Recent testing found TCE vapors at 24 micrograms per cubic meter of air at a vacant building on the site, about five times more than the state's guideline.

Tom Kennedy, owner of ICS, said Wednesday he is working with state health and environmental officials to address the problem and insure the safety of employees. ICS, with about six workers, manufactures computer printing products and destroys documents at 7 Badger Ave. The highest concentrations of TCE were detected next door in a vacant building at 2 Badger Avenue, also owned by ICS.

The state Department of Health has recommended steps be taken to reduce the possibility of exposure to trichloroethylene fumes, and an investigation is underway to determine the potential of TCE vapors tainting nearby structures, according to a site summary by the state Department of Environmental Conservation.

The DEC is developing a plan to determine how extensive the pollution is, according to agency records. It will likely use information from previous studies with more testing on and around the site, DEC spokesman Yancey Roy said Wednesday.

Roy did not immediately have details of the plan, including who would pay, but many sites added to the registry are often funded by state Superfund money until responsible parties are determined.

Some neighbors near the plant said Wednesday they had not been officially notified of the site's change in status, but they learned it from Sharon Stratton, who has lived next door to the plant for 26 years.

Stratton learned the site poses a threat in a recent letter from the DEC, but it did not include details about what that might be. She was the only one in the neighborhood who received the letter, she said.

The DEC tested soil and air at the Stratton residence and at a home across the street last winter, said Stratton and her neighbor, Sylvia Fulk. The DEC determined that chemicals were not found in concentrations that warranted action at the time, they said.

Stratton was told the testing at her home was related to a broader environmental investigation trying to pinpoint TCE hot spots throughout the village. She was unaware that the nearby manufacturing site was a pollution source until she received the DEC letter last month, she said.

The former Canada Dry site is less than a quarter mile south of another TCE site at 312 Maple St., a former electronics manufacturing plant. It is also less than a mile west of a section of the village polluted by solvents flowing from the former IBM site on North Street. Officials have been testing properties throughout the village trying to pinpoint TCE hotspots since the 2003 discovery of subterranean fumes pushing into basements through a process called vapor intrusion

Deseret Morning News August 20, 2007

HAFB to redraw its map showing pollution plume

LAYTON -- Hill Air Force Base is getting ready to redraw the map of a two-lobed plume of shallow groundwater contamination in Layton.

And though it may come as a surprise to some residents to find the plume is bigger than the current map shows, Hill officials want to reassure them the plume isn't moving.

"There's no evidence to suggest that," said Bob Elliott, the base's environmental restorations chief.

Over the past two years, base officials have been using new techniques to search for shallow groundwater contamination, and the Layton City Council recently got an update on those techniques.

But what started the investigation was the discovery of trichloroethylene, or TCE, vapors in homes outside of the plume's known area.

TCE is a potential carcinogen. The base was charged with cleaning up the contaminant from groundwater following Hill's designation as a Superfund site in 1987, when it was added to the U.S. Environmental Protection Agency's National Priorities List.

TCE first got into the shallow groundwater in Layton, South Weber, Riverdale, Roy, Sunset, Clinton and Clearfield when the chemical, an effective degreaser, was disposed of in unlined chemical pits from the 1940s to the 1970s.

Eventually, the practice was stopped when TCE was suspected as a carcinogen, but that didn't take contaminants out of the ground. Instead, they flowed in shallow groundwater onto the base and into the seven surrounding communities, where cleanup efforts now are under way.

Elliott stresses that TCE has not been found in drinking water and that drinking water supplies come from deep aquifers or from mountain reservoirs.

During fiscal year 2008, the U.S. Air Force is expected to spend $24 million on cleanup efforts, and from now until 2028, which is how far budgets are estimated, the Air Force is expected to shell out about $350 million.

Cleanup is expected to be completed sometime around 2070.

The process allows investigators to revisit contaminated areas to get a refined picture of where contaminants are.

During the past three weeks, residents south of Lincoln Elementary watched as the base installed monitoring wells in their neighborhood. The access plate to each well sits flush with the street and likely wouldn't cause much notice until a technician comes to take a groundwater sample.

Jarrod Case, who runs the base's air-sampling program, continues to test homes for vapor intrusion. As TCE moves through the ground, it sometimes volatilizes, or vaporizes, out of the groundwater and can surface underneath a home.

If levels of TCE are high enough, the base offers to outfit the home with a vapor-removal system, essentially a low-wattage fan installed in a basement floor that vents TCE vapors to the outside.

Testing is free, and if TCE is discovered in a home, the Air Force will pay to have a system installed and provide a stipend for the power it uses.

Barbara Hall, the project manager over the Layton plume, known as Operable Unit 8, said it's still too early to give the plume a new drawing. She doesn't plan to redraw the plume's map until she has at least two samples examined.

"Results of indoor air sampling don't necessarily correspond with the historically drawn groundwater plume," which was drawn in 2001, Hall said.

"We've gone back to relook so that we fully understand it," Elliott said.

The base also plans to install two more wells this fall or winter, one northwest of Lincoln Elementary and one directly north of the school.

Dewey Pearce, who lives south of the known boundary of the plume, said he's had his home tested twice and no TCE has been found.

John Burr, who lives up the street, said officials found TCE vapors the first time they tested, and have since come back to retest and found none.

Both men said base officials have been forthright about efforts to monitor and clean up contaminated groundwater, and Pearce added said that technicians are thorough and detailed about their work.

The Record August 23, 2007

School with tainted soil will open on time;

Garfield parents anxious, despite reassurances

The new Garfield Middle School will open on time next month, despite the recent disclosure by district officials that soil tests at the site have found traces of two dangerous chemicals.

In a letter dated Aug. 10, district officials told parents that tests conduc-ted early this month and in July had found the chemicals trichloroethylene and perchloroethylene 5 feet below the surface at levels that exceed state safety guidelines.

But Superintendent Nicholas L. Perrapato said the New Jersey Department of Environmental Protection conducted tests on the air quality inside the school, at 175 Lanza Ave., and on the groundwater at the site in July and August. The results of those tests were not available Wednesday, but Perrapato said they indicate that the chemicals pose no health threat to students. School will open as planned on Sept. 4.

It was not clear if school officials planned to have the contaminated soil removed.

"We feel very confident that everything is going to be fine," he said. "We're taking very precautionary measures. Right now, I feel very confident."

But that wasn't enough for parents who attended an open house in the school's cafeteria on Tuesday night.

"All these parents found out two weeks before school that the ground was contaminated," said Lisa Barno, whose 11-year-old son is set to attend the school this fall. "It seems we should have known beforehand."

Trichloroethylene and perchloroethylene are industrial solvents commonly used in dry cleaning. A DEP spokeswoman said Wednesday that she did not know what levels of the chemicals had been found at the site this summer. She referred inquiries to an official at the New Jersey Schools Development Authority who could not be reached.

School officials said Wednesday that the chemicals were first discovered in the soil at the site in 2004, when the district bought the 3-acre property for more than $2 million from the Great Atlantic & Pacific Tea Co. Click for Enhanced Coverage Linking SearchesThe company, commonly known as A&P, had owned the site for eight years, leasing it to a Foodtown supermarket, a bank, a coin-laundry business and a dry cleaner.

Perrapato said the contaminated soil had been removed and replaced as part of a plan approved by DEP officials. The discovery was not made public at the time.

When excavation of the site was completed in November 2006, groundwater 15 feet below the surface was found to contain "very low levels" of the chemicals, according to a July 23 PowerPoint presentation provided by the Schools Development Authority, formerly the Schools Construction Corporation.

The presence of the chemicals in the groundwater raised concerns about the possibility of "vapor intrusion," a process in which contaminants seep into buildings from the soil. The DEP and the state Department of Health designed a filtration system consisting of a series of pipes on the western side of the building to prevent chemical vapors from getting inside, officials said.

Tests conducted earlier this month and in July suggest the filtration system has worked, Perrapato said. But they also found contaminated soil 5 feet below the ground's surface.

Between 950 and 1,000 students are expected to attend the new middle school, Perrapato said. An additional 360 3- and 4-year-olds attend the Garfield Early Childhood Education Center, which opened on the site in September 2005.

Parents wanted to know why a contaminated property was chosen for the new school.

Kevin McElroy, a spokesman for the Schools Development Authority, said the school was built "on a remediated site."

"It was a district-driven decision as to where they wanted the school," he said.

Perrapato defended the choice, saying state health and environmental officials have seen to it that the chemicals pose no threat to the health of students or faculty.

"There was no danger to anybody because they removed all the soil," he said.

"Why would you be concerned at that point? Being contaminated means that you find the problem, you clean up the problem, and then you build."

But parents were still uneasy on Wednesday.

"As a mother, I have a right to be worried about our children," said Heidi Yarmula, whose 11-year-old son is enrolled at the school.

Barno said she "feels better that I know they're working on it," referring to school officials. But she added, "You always have concerns because you never know the effects down the road."

Rochester Democrat and Chronicle August 26, 2007

Tainted past hard to bury

Some claim state oversight of efforts isn't stringent enough

Three more Kodak Park buildings will be imploded next month, part of a revitalization program in which 100 structures will have been demolished at the vast manufacturing complex by year's end.

But long after the buildings are leveled and rubble is cleared, the impact of decades of pollution will persist. Despite hundreds of millions of dollars in spending, and about $65 million more to come, large swaths of Kodak Park remain contaminated, their soil and groundwater tainted by countless chemical leaks and spills over the years.

One-third of Kodak Park must remain industrial or commercial in nature, Kodak and its chief regulator, the state Department of Environmental Conservation, have agreed.

One critic, at least, fears this is an indication that the DEC hasn't been strict enough and may not have been up to the task of vigilantly overseeing Kodak Park remediation.

After 11 years of negotiations, the DEC still has not issued a key regulatory permit that would govern future cleanup at Kodak Park. Issues have been raised about other key permits at the park, long the bustling worldwide center for manufacture of film, other photographic products and chemicals.

Two full-time DEC inspectors work on site, mostly overseeing demolition work, and two other DEC staffers work on nothing but Kodak Park. Those four DEC employees and many others also enforce environmental regulations at Kodak Park and oversee a vast cleanup operation which, over two decades, has included studying more than 700 potentially contaminated areas and pumping and treating more than 500 million gallons of tainted groundwater.

"Obviously, the history of Kodak, the size of Kodak, our regulatory jurisdiction over Kodak, makes this a particularly unique project in terms of the resources dedicated to it," said DEC spokeswoman Maureen Wren.

The question, however, is whether that is enough. Some suggest the complexity of Kodak Park might overwhelm the DEC, which has a long, tangled history with Kodak.

"Has DEC been up to the job thus far? If that's the question, I think I would have to answer 'no.' Could they be? Might they be? Those are good questions," said Steve Breyman, executive director of Citizens' Environmental Coalition, an Albany group that has been Kodak's chief environmental critic.

His organization is part of a lawsuit challenging as too lenient the state's year-old soil cleanup standards. An older set, similar to the new standards, was used in decision-making at Kodak Park. Breyman said the future-use restrictions at Kodak Park are indicative of "a very serious problem with our chemical regulatory system."

"How is it that a firm is able over the decades to so pollute a neighborhood ... that Rochesterians could no longer even take up residence there?" Breyman said. "That's striking to me."

{}Contamination unearthed

Early in 1988, Kodak disclosed to the DEC that the company had been aware for years of pervasive soil and groundwater contamination at Kodak Park. While the company had studied the contamination and begun cleanup, it had not informed authorities of the problem's scope.

When the public learned that tainted groundwater had moved beyond the fenceline and was underneath several neighborhoods, the resulting uproar prompted criminal and civil investigations of Kodak's conduct. Subsequent disclosures about Kodak's considerable air emissions of toxic chemicals added to the public concern.

The contamination probes culminated in Kodak pleading guilty to two criminal misdemeanor charges in 1990 and paying $2 million in fines to New York state. Kodak later paid a $5 million fine to the U.S. Environmental Protection Agency and agreed to upgrade and remediation programs.

Since that time, Kodak has spent hundreds of millions of dollars on those efforts. A chemical storage-tank replacement program alone cost about $170 million, company spokesman Christopher Veronda said. Because of enhanced pollution control plus declining manufacturing operations, air emissions have fallen dramatically.

"Kodak remains committed now and into the future to address groundwater issues and complete the remedial actions that are largely in place," he said. "We live in this community and care deeply about its future."

One Kodak Park neighbor, once a member of a citizens group that protested environmental practices there, said that everyone had seemed to cooperate in the immediate aftermath of the scandal.

Today, Charles Roemer said, he's not sure how the DEC is doing. "I have a cynical, political sense of the limitations that are put on anyone in that job to do anything, when it comes to working with such a complex issue as the chemical spills that have taken place. Without the cooperation of the company, it's really impossible to do anything creative about it. You have to assume they're on the same page."

The company has installed 868 wells to monitor groundwater flow and contamination under Kodak Park.

Thirty-three separate systems pump contaminated water from below ground and deposit it in Kodak Park's industrial sewer. It then is treated at the company's King's Landing wastewater plant, designed to remove virtually all hazardous chemicals in the water before discharging it into the Genesee River.

Kodak pumped up an estimated 65 million gallons of groundwater last year, and 500 million gallons since the program began in 1988.

The overall groundwater strategy at Kodak Park has been, first, to prevent tainted water from flowing off company property and, second, to reduce the contamination under the park itself. Kodak and DEC officials say the first goal has been met no contamination is migrating to adjoining neighborhoods, and some of the off-site contaminated groundwater has been pulled back and treated.

"I would say that the contamination is typical of what we get at a large industrial complex," said Dan Evans, a DEC environmental engineer who works on Kodak Park issues.

Relatively minor contamination remains in the bedrock outside of Kodak Park. But more of it remains under the park and won't go away anytime soon. Under rules negotiated with the DEC,

Kodak will continue operating its 33 pumping stations until groundwater consistently meets state standards.

In part because contaminants have seeped deep into fractures in the bedrock where they can't always be recovered with current remediation technologies, Kodak will not meet those goals "right away," said David Mitchell, remediation program manager for Kodak. Monitoring, to ensure that any tainted water is being contained, is to continue for a period of years that has not been settled yet.

The company and the DEC have identified 736 locations at Kodak Park where hazardous or solid wastes have been present and could be contributing to contamination. Each of them required a separate investigation. Work is finished at many high-priority sites, though further study or cleanup is needed at more than 300 of them.

The goal for contaminated soil has been to prevent human contact with it. Only the most contaminated soil near spill sites has been removed; some other areas with high concentrations of chemicals or harmful metals have been capped with pavement, soil or stone, Kodak and DEC officials said.

{}Soil, groundwater, vapors

Years ago, the DEC pushed for soil removal, but Kodak convinced the agency that it was too expensive and impractical.

Full cleanup also isn't necessary, the company contends. "We've not found, in the majority of these investigations, an unbelievable amount in the soil. It goes to (show) the site isn't nearly as contaminated as people think," Mitchell said.

DEC officials agree contamination was not severe, and said removal of it would be impractical. Still, soils within Kodak Park do not meet state guidelines for residential use.

Thus, the agency and Kodak have agreed to restrict future use of much of Kodak Park to commercial or industrial purposes. Because workers are exposed to soil contamination for less time than a resident, the standards for commercial and industrial use are less strict.

DEC officials said such use restrictions are a standard remedy at contaminated industrial sites, and Kodak officials said the restriction maintains the historical use of the property.

Study of the possibility that vapors are rising from contaminated groundwater and soil remains a work in progress. Veronda of Kodak said "nothing to date" indicates the vapor intrusion is a concern.

One round of tests at the fenceline found very low levels in the soil of vapors from trichloroethene, a solvent that hadn't been considered a big problem at Kodak Park, said DEC engineering geologist Larry Thomas. Kodak is re-testing to verify the results, he said.

The DEC negotiated with Kodak on a program to test for vapor intrusion within Kodak Park. A number of other companies in New York have done such testing in recent years at the request of the DEC and state Department of Health, but Kodak and the DEC could not come to an agreement and that work has not been done.

Thomas said results of that testing, if it is done, could have some bearing on future use of Kodak Park. "Certainly there are potential issues with soil vapor, based on the contaminants they've handled," he said.

{}How clean is clean?

Re-use of Kodak Park is a laudable goal, Breyman, of the Citizens' Environmental Coalition, said. "Organizations like CEC far prefer economic development to take place on remediated urban sites, former industrial messes, rather than in rural greenfields."

But Breyman wonders about the goals set at Kodak Park. While the groundwater targets seem reasonable, he said, the soil targets are not. The CEC is part of a lawsuit against the state claiming that none of the standards for residential, commercial or industrial use are stringent enough.

"It is our argument that none of them are sufficiently protective of human health. Even if this (Kodak Park) goes according to plan, we would not be satisfied. It's our view that that is not clean enough," Breyman said.

Breyman also said the DEC was short-staffed and industry-friendly during the 12 years that George Pataki was governor.

"It is fair to say they were not up to watchdogging and regulating these giant multinational corporations like the big three (in New York) General Electric, IBM and Kodak," he said.

Breyman is hopeful that Gov. Eliot Spitzer's DEC will be more aggressive.

Another environmental group intervened several years ago when it felt DEC had not been strict enough in Kodak Park's major air emissions permit; the EPA agreed with some objections and ordered the permit changed. And as a third environmental group has pointed out, the permit for Kodak's wastewater treatment plant is seven years overdue for a required full technical review.

But of all the permits that govern environmental affairs at Kodak Park, one of them the Part 373 hazardous waste management permit is integral to the complex's future. That permit would incorporate the ongoing cleanup program, mandate additional preventive measures and govern the future use of Kodak Park property. It would codify the rules under which cleanup and monitoring could end.

Yet Kodak Park has never had a Part 373 permit. The DEC and Kodak have been in discussions over the permit since at least 1996, when a predecessor permit issued by the EPA expired. Over

that period, the EPA permit, written in the mid-1980s, and interim state regulations, have governed.

In the absence of a final permit, Kodak has separately agreed to a number of the measures it is now pursuing. Other efforts, such as testing for vapor intrusion within Kodak Park, may not go forward until a permit is signed, Evans said.

Two draft versions have been issued for public comment. A 2004 draft drew several dozen people to a public hearing, but that version was later withdrawn for revision.

The new version, issued earlier this year, elicited only one verbal comment at a public hearing in March, Wren said, and no outside parties have intervened in the process.

Breyman, noting that his group has closed its western New York office and a Rochester-based citizens group that focused on Kodak has disbanded, said the lack of public comment was worrisome. "There's nothing like having a local watchdog," he said.

Kodak, though, has raised about 75 questions on proposed permit language, Wren said. Dozens more questions are pending from the 2004 go-round, she said, and negotiations continue. There is no target date for issuance.

She said the delay can be attributed to changes in Kodak Park's operations and in state regulations, plus the complexity of Kodak Park itself.

"The length of time required to finalize a permit for this facility was caused by the multi-layered factors, not lack of staff," Wren said. "DEC has sufficient staff both for the permitting and oversight of the facility."

Summers said Kodak "has done everything and then some to try to get the permit final." The process, Veronda added, has been "robust."

Breyman, though, said that scientific understanding of contamination, and technical means to act on it, have changed greatly during the period that Kodak Park has had no Part 373 permit.

"Given the more we learn and the increased sophistication of our instruments ... I can't imagine that the delay has advantaged public or environmental health at Kodak Park," Breyman said. "I'd say probably to the contrary. They are just delaying a day of reckoning here, and they're putting Kodak Park health at risk."

Star-Gazette August 29, 2007

EPA to test air in Heights homes

ELMIRA HEIGHTS Federal authorities want to find out whether two former local industrial cleanup sites are affecting the quality of the air in nearby homes.

The U.S. Environmental Protection Agency recently sent letters to about 200 residents in the Elmira Heights area, asking for permission to test the air in their homes for traces of trichloroethylene, or TCE, a common industrial solvent.

The EPA is conducting the tests because of the proximity of the former Facet Enterprises and Kentucky Avenue Superfund cleanup sites.

The Elmira Heights residents weren't singled out for any specific reason, and similar testing is taking place at Superfund sites all over the country, said Mike Basile, community involvement coordinator in the EPA Buffalo office.

"We aren't doing it to alarm anyone, but we're doing it as a precautionary measure, not knowing what we might find," Basile said. "EPA is going around the country at all sites where TCE was a contaminant, and we're just doing voluntary sampling in residential homes, trying to determine if there are any vapors in the sub-floor of residences."

The Kentucky Avenue wellfield site is part of the former Westinghouse property in Horseheads and at one time supplied 10 percent of the city of Elmira's water.

The wells were closed and the EPA put the site on its National Priorities List in 1982 after the agency found dangerously high levels of TCE. The Westinghouse Electric Corp. paid most of the cleanup costs.

The Facet site on Corning Road in Elmira Heights has been a location for makers of automotive parts since 1895, and remains an active industrial site.

Even though both sites were extensively rehabilitated, the EPA is still concerned that some trace of the contaminant may linger.

The testing process is fairly unobtrusive, Basile said.

"If they give us access, we'll come into their homes and drill a small hole into the basement floor, and we'll then put a canister in there for a 24-hour period," he said. "Then we take the canister out and plug up the holes. Three or four months later, we'll get results back and see if there are any vapors."

If TCE vapors are detected, the EPA will provide homeowners with free equipment that removes the vapors and vents them outside, Basile said. Residents would have to pay only the cost of electricity to operate the equipment, which runs 24 hours a day, he said.

TCE vapors, if breathed in small amounts, can cause dizziness, headaches or skin irritations. When breathed in large amounts, it can cause impaired heart function and even death. Breathing it for long periods may cause nerve, kidney and liver damage, according the U.S. Department of Health and Human Services' Web site.

EPA representatives will hold an informational meeting from 4 to 8 p.m. today at Edison High School for residents who have any questions.

Even though Basile said the process should not cause any alarm, residents who got letters still have a lot of questions.

"I was very concerned. We hadn't really thought about it before. I didn't really know there was an issue," said Jen Martone of West 15th Street. "I just will listen to see what they have to say and then something might formulate in my head. I don't know what this chemical is that they are talking about. I want to find out more about it and if they do find it, what are they going to do about it."

If traces of TCE are found in numerous houses or homes that are clustered together, the EPA will expand the test area, Basile said.

Elmira Heights Mayor Arthur Caparula said he was not notified of the EPA testing, but was informed of it by county Legislator Peggy Woodard.

"I've only had one phone call, from my niece," Caparula said. "She knew about it before I did. I don't think there's any problems here, but we'll find out."

Robin Stroman of Chemung plans to attend today's meeting for a different reason.

Stroman wants to find out from EPA representatives whether any of the contaminants that were removed from the Kentucky Avenue wellfield in 1995 were dumped at the Chemung landfill.

"The record of decision doesn't say where they were sent to," Stroman said. "One thing I'm going to try to find out is who removed the waste and where was it taken. If it isn't classified as hazardous waste, it can go to any permitted landfill."

Press & Sun-Bulletin September 3, 2007

TCE tests prompt venting of 6 Vestal homes

VESTAL Six more homes north of a polluted site on Vestal Parkway are scheduled to be fitted with special ventilation systems in coming weeks after tests found chemical vapors pose a health hazard.

Additionally, 21 more homes in the suburban neighborhood between a popular walking trail and the Susquehanna River will be tested for the problem in the upcoming heating season, according to information from the Department of Environmental Conservation. Homes are typically tested with windows shut and furnaces running, which presents a worst- case scenario for chemicals to enter through foundations.

The land, near King and Birch streets, is tainted by a subterranean plume of trichloroethylene (TCE) flowing under the Parkway and the Vestal Rail Trail from the former Hidden Valley Electronics site now occupied by American Family Fitness about a quarter-mile to the southeast.

Systems to vent fumes from under foundations have been installed on nine properties in the King Street area. Additionally, a system was installed at the former Hidden Valley site to draw vapors from under the plaza on the south side of the Parkway.

The decision to install more systems and do more testing in the King Street area came after a round of sampling earlier this year that included 20 new homes and 14 homes previously tested in 2006, DEC spokeswoman Lori O'Connell said. Testing additional homes during the next heating season will help environmental and health officials determine the extent and boundaries of the pollution.

Approximately $550,000 in state Superfund money has been spent on the site, and an additional $300,000 is anticipated to be spent, O'Connell said.

Residents living in homes on the west end of King Street not scheduled for testing said they were uneasy about living with the prospect of pollution nearby and urged the DEC to include them.

"We would like to know," Gail Gunsalus, who lives at the end of the street, said.

This is the fifth year of a comprehensive search for trichloroethylene (TCE) vapors in Southern Tier homes and businesses near industrial sites tainted by the industrial solvent.

Systems to prevent chemical gases from collecting under and passing through foundations have already been installed on more than 700 Broome County properties near industrial sites affected by a problem called vapor intrusion.

A majority of them are near former micro-electronic factories or contractors, which tended to use TCE in production lines. TCE and similar solvents were also favored by other businesses, such as dry-cleaning, and are ingredients in many household glues, paints and thinners.

TCE exposure has been linked to chronic and acute illnesses, such as cancer and brain damage, although there is debate over the effects of exposure to low levels.

Daily News September 13, 2007

OIL SPILL MAY BE BIGGER, LEAKING TOXINS IN HOMES

A MASSIVE underground oil spill in Brooklyn may be twice as big as thought and could be leaking toxic vapors into homes, a bombshell report reveals.

The Environmental Protection Agency report also said that at ExxonMobil's current cleanup rate, it could take 25 years to clear away just 70% of the decades-old spill under Greenpoint.

"This is a searing indictment of ExxonMobil's complete failure to clean up the toxic mess they created," said City Councilman David Yassky (D-Brooklyn).

The slick has long been considered to be about 17 million gallons but the feds now say the amount could be 30 million - nearly 20 million gallons more than the 1989 Exxon Valdez spill. The report also said that "high levels of methane gas concentrations have been found . . . in some commercial establishments," and it calls for new tests in homes with high vapor levels.

"This report confirms what we have been saying all along," said Basil Seggos of the Riverkeeper organization, which has led the fight to clean up the toxic mess that has seeped into Newtown Creek. Reps. Anthony Weiner and Nydia Velazquez (both D-Brooklyn), who commissioned the report, said more health studies must now be done.

The report is the latest black eye for ExxonMobil over the spill, which was discovered in 1978. In July, Attorney General Andrew Cuomo sued ExxonMobil over the slow cleanup. Homeowners have also filed two class-action suits, and another suit has been brought by Riverkeeper and elected officials. The report is expected to bolster the suits.

"We recognize that there is more to be done there, but we have to also recognize that significant progress has been made," said oil company spokesman Barry Wood. "ExxonMobil shas accepted responsibility and we're going to be in Greenpoint until the job is done and the job is done right."

Dorothy Swick, 71, who has lived above the plume for 30 years, said the report was "about time" and she's worried about long-term health effects.

Dayton Daily News September 16, 2007

Chrysler, EPA need to test homes

The soil and groundwater beneath dozens of city blocks south of the old Chrysler plant (now Behr Dayton Thermal Products) off Webster Street in North Dayton are seriously polluted.

The main toxin is trichloroethylene, or TCE, a degreasing solvent that is a suspected carcinogen. The chemical also may cause nerve, kidney or liver damage, according to the National Academy of Science and other health experts.

The Behr site is "hot" - meaning the contamination level is high - and the "plume" of pollution is large. No one knows the full scope of the health risks or how many families in a working-class neighborhood of several hundred are living with unacceptable levels of TCE vapors in their homes.

That question of who's at risk must be answered - now. In a community that has vast experience with industrial pollution, the stakes at this site are especially high: Human health is directly at risk. Regulators, politicians and the Chrysler Corp. Click for Enhanced Coverage Linking Searchesmust act with urgency.

Here's the hang-up:

The U.S. Environmental Protection Agency and Chrysler are arguing about who will pay for tests and added protections for a potentially large group of homeowners. Chrysler, which began operating at the site in 1924 (selling it to Behr in 2002), voluntarily agreed to clean up the property. It installed a groundwater treatment system at its plant.

In addition, homes nearest to the plant have been tested for toxic vapors. Those exceeding even a very conservative level of TCE have been fitted with vapor removal systems - essentially ventilating fumes from beneath their basements to the outdoor air.

But recent tests of water and soil to the south of the plant show serious problems that extend over a much larger geographic area. That means soil must be tested beneath foundations of many more homes, and the indoor air quality in those residences needs to be monitored.

If tests reveal unacceptable TCE vapors, more homes will have to be fitted with the special ventilation systems. The protection could be costly, and the system used so far has not adequately reduced vapor levels in about one-third of the homes in which it has been installed.

Chrysler is not contesting the new evidence that there's additional TCE contamination. But it has not agreed that the pollutants came from its plant; other businesses, it says, could be a source. Chrysler is considering exercising a special appeal that is part of its voluntary clean-up agreement.

For its part, the federal EPA - which is the lead regulator in this case - has an emergency team assigned to the site. Its personnel here are highly regarded by local environmental and health officials. They have emphatically countered Chrysler's arguments and urged the company to step up.

The disagreement has reached a point where senior EPA officials in Chicago have to make some calls about how fast to act and who's going to pay - which carries the risk that behind-the-scenes politics will influence the outcome.

That's where U.S. Rep. John Boehner, R-West Chester, has an important role. He represents this little corner of Dayton. His constituents need his help in a big way, and he has the power to make sure they don't get pushed around.

Chrysler says it is still discussing the issue with federal regulators and that it "does not intend to duck responsibility to this community."

If Chrysler balks, the U.S. EPA must step in with emergency resources - and then try to recover from Chrysler or other responsible parties.

Dayton citizens have a long history of effective activism in response to environmental hazards - and they are closely following events in North Dayton.

Herald News September 24, 2007

The soil vapor danger below; In rush to find school sites, N.J. lacks policy to protect public from chemical intrusion

GARFIELD - As students walked into the new Garfield Middle School building on Lanza Avenue on their first day of school, chemical vapors found in June were being extracted from under the property.

A noxious plume of trichloroethylene and perchloroethylene, which had evaporated from groundwater 15 feet below the ground's surface, was detected by environmental engineers in soil between the school and Fleischer Brook, which runs along the western side of the site.

State and local officials said they believed the chemicals were left behind by Cameo Cleaners, a dry cleaner that was part of the strip mall demolished in 2004 to make way for the school for 1,200 sixth-, seventh-, and eighth-grade students.

Parents weren't notified of the pollution on the site until the district sent letters dated Aug. 10 - weeks before school started. Days later, state and local school district officials held a meeting with parents at which they told them about the soil vapor remediation system in place and that the 178,000-square foot building, which took three years and $37.4 million to build, was safe for staff and students to occupy.

Three to four more tests will be conducted in the upcoming year, but there's no guarantee that the building will continue to get a clean bill of health.

Officials at government environmental agencies concede that soil vapor intrusion - when soil vapors pollute a building's indoor air, usually by seeping into cracks in the foundation - is a comparatively new field they are just beginning to understand. Critics and environmental watchdogs say a variety of factors can influence where the soil vapors travel.

Critics also say the state Department of Environmental Protection lacks tough regulations and enforcement power to protect the public against soil vapor intrusion dangers.

They complain that the current system places a higher priority on facilitating redevelopment than on worrying about public health - even when it comes to school projects.

Bill Wolfe, a former DEP employee who now leads New Jersey's chapter of Public Employees for Environmental Responsibility, questioned the timing of the Garfield Middle School soil vapor test. The DEP released its 158-page report on soil vapor intrusion recommendations in October 2005.

Why wasn't a test conducted until June 29, Wolfe asked?

"It's a major snafu," Wolfe said. "It exposed a fatal flaw in the design of the program that the DEP knows about and does not fix."

Jeff Tittel, director of the Sierra Club's New Jersey chapter, was also critical of the state's lack of soil vapor policy.

"New Jersey has no real vapor intrusion program," Tittel said. "The system is broken."

What is soil vapor?

Larry Hajna, spokesman for the DEP, called soil vapor intrusion "an emerging science."

"It's been within the past several years that the importance, in terms of its relative health risk, has really become an issue," Hajna said. "In context, New Jersey is certainly at the forefront."

Chemicals known as volatile organic compounds, which include TCE and PCE, in groundwater can volatilize or evaporate. The released vapors inhabit the spaces between soil particles in the ground.

The white pipes seen sticking about 3 feet out of the ground on Garfield Middle School's western side are part of the soil vapor remediation in progress, Hajna said.

The system is designed to draw the vapors out of the ground into a carbon filtration unit that removes the contaminants before they get into the atmosphere, he said. DEP officials project that the soil vapors will be cleared within a year.

However, a variety of factors - including climate and the soil's composition - can influence how and where the vapors travel, according to Daniel Gimenez, a soil physicist at Rutgers University's Department of Environmental Sciences.

"It is reasonable to assume you will find the contaminant closer to the surface when the groundwater table is closer to the surface, which is typically during the spring," Gimenez said.

Not only does the spring thaw bring more water into the soil, but even in mild winters, there is also less vegetation to absorb water, contributing to a rise in the groundwater table, he said.

David Vaccari, director of Stevens Institute of Technology's Civil, Environmental and Ocean Engineering Department, said time of year isn't necessarily a predictor of when groundwater tables rise. Summer rainfalls could just as easily affect groundwater levels.

Langan Engineering and Environmental Services, running tests for the N.J. Schools Construction Corp., concluded the property's soil and groundwater contained volatile organic compounds - including TCE and PCE - in a report dated July 17, 2003, long before construction began on the Garfield school.

Vaccari said that it was "reasonable" to examine only the soil and groundwater at first.

But the fact that vapors of TCE and PCE were found in June - after all the tainted soil was believed to have been removed from the site - "might give people pause."

"You can't probe every square foot," Vaccari said. "There's always going to be a risk that you follow the rules and you missed something."

No rules, only guidance

The DEP's soil vapor intrusion guidance, adopted in October 2005, includes recommendations of what property owners should to do when particular chemicals reach certain levels of contamination in indoor air.

But Tittel of the Sierra Club said unless the DEP gets increased enforcement power by providing regulations, the guidance is academic.

"It's a voluntary cleanup program in New Jersey," Tittel said. "The responsible party gets to pick the remedy. Overall, the DEP doesn't have the leverage to make you do what's right. That's the big thing that has to change."

Hajna disavowed the assertion.

"We are very forceful in telling the owner that we want the soil vapor guidance to be implemented," he said.

But when asked what the DEP could do in the case of a property owner who resisted the guidance, Hajna said, "There's a fair concern there."

Land now, cleanup later

Lenny Siegel of the Center for Public Environmental Oversight in Mountain View, Calif., said that the competition among New Jersey school districts for school building funding is a contributing factor for environmental issues getting short shrift.

"They have to go and choose a site as early as they can to get in line for state money," said Siegel, who reviewed a draft of New Jersey's soil vapor guidance in July 2005.

"There's this rush to overlook potential environmental problems to the point that all you can do is mitigate," he said. "You pick the site, and you worry about the environmental issues later."

Ronald Carper, the SDA's assistant director of real estate and environmental services, said the Garfield School District chose the Lanza Avenue site for a middle school in 2000.

Garfield Schools Superintendent Nicholas L. Perrapato did not return telephone calls seeking comment.

In September 2003, while the Garfield Middle School project was in its early phases, the DEP and the SDA's predecessor, the Schools Construction Corp. made an agreement to expedite environmental reviews of hundreds of proposed school sites throughout the state.

In April 2005, N.J. Inspector General Mary Jane Cooper reported in her initial review of the SCC that schools districts often selected sites that were "patently unsuitable for schools," many times because the properties were "environmentally contaminated."

Gov. Jon S. Corzine's establishment of the Schools Development Authority on Aug. 6 was aimed at reforming the state's school building practices, but Wolfe said that without tough regulations, the emphasis on speedy completion will remain the priority in school construction projects.

Schools on tainted sites

In an Aug. 24 interview, Perrapato said he was confident that the school was "all set to go," citing two tests in July of the school's indoor air that detected no contamination. Nevertheless, parents wondered why a contaminated site was chosen in the first place.

Even environmental activists, including Siegel, acknowledge that in many cases, particularly in New Jersey where land is at a premium, some school districts may have no alternative but to build on a site that has some contamination. But in those cases, they urge for complete remediation before the school is opened.

When Tittel was asked if he thought school officials made the right call in allowing the school to open, he replied, "I think it's a poor decision to build schools on contaminated sites."

Wolfe agreed.

"If it's my kid, no way in hell would I let a school board build on a contaminated site," he said.

Dayton Daily News September 25, 2007

Contaminated Troy site could become an EPA priority

TROY - The federal EPA wants to put Troy's groundwater contamination on its National Priority List, freeing up more money and expertise to deal with the problem.

"We've made this recommendation based on the potential contamination of the city's wellfields," said Laurie Ripley of the Environmental Protection Agency's Chicago office.

The agency will hold a 60-day public comment period to gather input from residents, local government, other agencies and businesses.

The agency will then determine whether the site should be added to the priority list. Making the list makes the site eligible for Superfund money for possible cleanup.

Local, state and federal state tests found that groundwater under 40 blocks east of downtown was contaminated with tetrachlorothene (PCE) and trichloroethene (TCE), both used to degrease machinery. PCE, often called "perc" also is used in dry cleaning.

State health officials said the short-term health hazards were negligible. Long-term hazards are unknown.

While Ripley and her colleagues are determining whether to list the site, other EPA employees are tracking the source of the two plumes.

If a source can be found, those involved will be asked to help pay for the cleanup.

When PCE or TCE are exposed to water, they change to vapor, which migrates through the soil. The vapor can enter basements or houses through cracks in the foundation. Testing earlier this year found 16 structures, including St. Patrick School, with higher than acceptable levels of PCE or TCE vapor.

The EPA has since installed a venting system in all 16 structures to take care of the problem.

The Virginian-Pilot November 9, 2007

TESTING FINDS NO CONTAMINATION UNDER MILITARY FAMILIES' HOMES

RALEIGH, N.C.-Federal environmental officials said Thursday a new round of testing found no chemical contamination under a school and houses used by military families at Camp Lejeune.

The U.S. Environmental Protection Agency and the Marine Corps said in a joint statement that a network of monitoring wells didn't find any chemical contamination from a nearby Superfund site.

Base officials closed several water supply wells in 1987 that were contaminated with solvents from ABC One Hour Cleaners across the street from the Tarawa Terrace I base housing complex. Government figures estimate that up to 1 million people were exposed to the chemicals.

In July, base officials notified residents of nearly 900 homes that testing was under way to determine whether a plume of chemicals had seeped through the ground to further contaminate water supplies and send vapors into buildings.

Data from the monitoring wells shows "that the plume of contamination from the ABC site does not extend beneath Tarawa Terrace Elementary School or housing area and is therefore not capable of generating a soil vapor intrusion concern," the statement said.

Sampling occurred in July and August. Water samples were taken July 16-24 from 10 locations and one location showed "extremely low concentrations" of the solvent tetrachloroethylene, the statement said.

"The other contaminants of concern were not detected in any of the samples collected," the statement said.

Another round of sampling on Aug. 1 included air at the elementary school and two unoccupied homes.

In September, the U.S. Senate approved a measure that could require the Navy to notify former residents of the North Carolina housing that they were exposed to contaminated water between 1958 and 1987.

Dayton Daily News November 10, 2007

EPA sets meetings on industrial sites

DAYTON - The U.S. Environmental Protection Agency will hold two meetings in coming days to discuss environmental issues surrounding two industrial sites.

The meetings will focus on vapor intrusion issues in the neighborhoods surrounding Delphi Corp.'s Home Avenue plant and the Behr Thermal plant on Webster Street.

The meeting on the Delphi plant will be 6 to 8 p.m. Wednesday at the Westwood Recreation Center, 611 Leland Ave., Dayton.

Buckeye Charters will drive a shuttle bus 5:30 to 8:30 p.m. to the Delphi meeting Nov. 14. The shuttle starts at the Delphi parking lot on Third Street, just east of Abbey Road, and ends at the Westwood Center. Multiple trips will be made, the EPA said.

The meeting on the Behr plant will be 6 to 8 p.m. Nov. 15 at Kiser Middle School, 1401 Leo St., Dayton.

St. Paul Pioneer Press December 4, 2007

St. Louis Park underground vapors trigger investigation

Mysterious underground chemical vapors discovered in St. Louis Park have prompted an investigation by federal, state and city agencies.

The U.S. Environmental Protection Agency, the Minnesota Pollution Control Agency, the Minnesota Department of Health and the city of St. Louis Park said today they have launched a study to determine the extent and any potential risks from the vapors. The study area involves an estimated 270 properties near Minnesota 7 and Wooddale Avenue.

About 20 percent of them are municipal, commercial or industrial properties and include St. Louis Park High School, 6425 W. 33rd St., and Park Spanish Immersion School in the Central Community Center, 6300 Walker St.

Meetings to discuss the investigation will be held at 7 p.m. on Dec 13 and at 2 p.m. on Dec. 15 at the St. Louis Park Recreation Center, 3700 Monterey Drive. Doors will open 90 minutes before the meeting so property owners can meet individually with officials.

A letter explaining the study has been sent to homes and businesses in the area.

The study was prompted by the discovery of vapors from volatile organic compounds, or VOCs, in area groundwater samples. The VOCs do not affect local drinking water supplies but vapors can rise through soil into buildings through basements and foundation cracks.

Tests also found vapors in soil near the intersections of Gorham and Walker streets and Oxford and Colorado streets.

So far, authorities have said there is no evidence the vapors are getting into buildings.

"The cooperating agencies wish to assure you there is no evidence suggesting an imminent health risk to occupants, but the potential vapor intrusion problem needs to be checked out," the letter said.

VOCs such as perchlorethylene, trichloroethylene and vinyl chloride were commonly used in industrial degreasers, metal cleaners and dry cleaning fluids.

On a separate track, the agencies are working to identify possible sources of the groundwater pollution.

The EPA said it will ask property owners to sign access agreements so its workers can take soil and air samples in and around buildings to determine whether vapors are seeping into indoor air. Over the next few weeks, project teams will be seeking that access.

Those attending the Dec. 13 and 15 meetings will be able to arrange for the sampling. There will be no cost to residents or businesses for the testing.

EPA officials said they will conduct the air and soil sampling by drilling a small hole in the basement or crawl space floor to collect a vapor sample, a process that takes about 45 minutes. The hole will be filled or patched when sampling is completed.

Some VOCs have no detectable odor at low levels. Breathing low levels for long periods of time may increase some people's risk of health problems.

A map of the study area will be available later today at www.stlouispark.org.

Star Tribune December 5, 2007

ST. LOUIS PARK: Vapors may be seeping into suburb

The EPA is concerned that hazardous vapors from groundwater could be wafting into schools and homes in St. Louis Park.

The Environmental Protection Agency wants to test St. Louis Park High School and about 270 homes, businesses and other buildings nearby for potentially hazardous vapors seeping in from underground.

If it finds problems, the EPA will use Superfund money to correct them, city officials said.

"We don't see an imminent public health threat at this time," said Brad Moore, Minnesota Pollution Control Agency commissioner. The EPA said in a press release that so far, it has seen "no evidence that the vapors are getting into buildings at this time."

However, the agency wants to check properties on both sides of Hwy. 7 near Wooddale Avenue, where two sets of soil borings earlier this year detected vapors in soil, Moore said.

The study was prompted by the discovery of compounds used as solvents and degreasers in shallow groundwater and soil in the suburb just west of Minneapolis. The substances, known as volatile organic compounds, do not affect drinking water supplies that are much deeper, state pollution authorities said.

But their vapors could rise through soil into buildings through basements and foundation cracks. It's the sort of contamination problem outlined earlier this year in a Star Tribune series that described 20 significant plumes of tainted groundwater underlying 35 metro-area communities.

Officials did not want to speculate on what would happen if elevated levels of chemicals were found, but they compared the potential contamination to radon, where homes with elevated concentrations of the gas can have their basements ventilated to solve the problem. Ed Pelto, owner of Ed's Heating and Air Inc. in Woodbury, said that it typically costs $1,300 to $2,500 for homeowners to vent basements so radon does not accumulate.

The area to be tested includes St. Louis Park High, with about 1,500 students, staff and administrators, and Park Spanish Immersion School in the Central Community Center. Samples were taken at both schools on Saturday and Sunday, state pollution control officials said, and the results should be available in a few days.

When asked whether parents should be concerned, school district spokeswoman Amy Parnell said: "To be honest, we need answers to those questions as well." High school Principal Rob Metz said that the district is preparing to send a letter to all parents in the next day or two.

Affected property owners began receiving separate letters from the EPA and the city of St. Louis Park on Tuesday. They explain the study, which would begin in mid-January, and ask for cooperation because the EPA needs permission to enter homes and conduct the tests.

That was not good news to Jay Gianera, who is trying to sell his house near Wooddale Avenue, where he has lived for the past eight years. But he was philosophical. "It's out of my control, and I tend to put things in two categories: things I have control over and things I do not," Gianera said.

Charlie Gebien with the EPA's emergency response unit said that owners will not be charged for the air sampling and will be informed of the results. "There would be borings conducted in the basement to determine if there are any vapors in the sub-slab area, and then that would be combined with indoor sampling of the air in the residence," Gebien said.

The EPA is testing indoor air for similar chemicals in the Dayton, Ohio, area, officials said, but on a smaller scale. "The whole issue of soil vapor intrusion is really an emerging one," Moore said.

St. Louis Park residents Charles and Carmella Anderson said they're willing to endure drilling in their basement, and trust that the city will handle the study and any fixes as successfully as it cleaned up a nearby industrial site years ago. "St. Louis Park has always been tough with this kind of stuff," Charles said.

The retired couple live in a 115-year-old house in the affected area and raised three children there. They have tested their basement for radon. Carmella said she's been having headaches for five weeks but doubts that they are related to any chemical vapors.

The vapors found in St. Louis Park are from several compounds, including vinyl chloride, tetrachloroethylene and trichloroethylene. They are commonly used in industrial degreasers, metal cleaners and dry-cleaning fluids, and some have no detectable odor at low levels.

Jim Kelly, health risk assessor for the Minnesota Department of Health, said exposure to low levels of the chemicals over time could worsen asthma and other problems, and at very high levels could cause more serious health problems, including cancer. But he said it's premature to assume risks.

"We don't know yet whether there are any vapors that even are intruding into people's basements," he said.

Doug Wetzstein, MPCA Superfund Unit supervisor, called the St. Louis Park study a large project on the scale of the arsenic investigation and yard cleanups in south Minneapolis, and the asbestos contamination and cleanups in northeast Minneapolis. Like those projects, state officials referred the St. Louis Park case to the EPA, which can tap emergency money from the national Superfund for testing and lab work.

Mick Hans, EPA regional spokesman, said that federal and state officials will search for the source of the contamination in St. Louis Park "on a separate track." Wetzstein said that there may be multiple sources of the pollution in the industrial Hwy. 7 corridor, where "dozens and dozens" of machine shops, dry cleaners and other businesses used solvents and degreasers.

Wetzstein said that the MPCA began testing the groundwater in St. Louis Park after a municipal well in Edina showed elevated concentrations of the chemicals in 2003 and was shut down. As state officials traced the flow of groundwater to St. Louis Park, they began testing soil earlier this year and found vapors as shallow as 3 feet.

Although the sources are unknown, St. Louis Park inspections director Brian Hoffman said that the contamination does not result from the former Reilly Tar and Chemical site, a former creosote plant whose contamination the city is still cleaning up.

In a letter to affected property owners, Hoffman urged them to cooperate.

"The EPA will cover the cost of this remediation for homeowners, so it's important that you allow the testing at this time," Hoffman wrote.

The Ithaca Journal December 12, 2007

Tests find high levels of VOCs on South Hill

Report on Emerson site, NCR sewer shows continued presence of contamination

Journal Staff

ITHACA A new report on contamination on South Hill continues to show high levels of a variety of volatile organic compound emanating from the fire water reservoir on the Emerson Power Transmission site and from the NCR sewer.

The report, prepared by Emerson's consultants, WSP Environmental Strategies, was sent to the state Department of Environmental Conservation last Friday. It includes the results of tests on the 25 "Areas of Concern" on Emerson plant property, the fire water reservoir, groundwater quality and potential discharges, and soil vapor and manhole vapor sampling downhill from the plant in the Phase VI Indoor Air Expansion area.

Results show continuing high levels of contaminants in the reservoir and in soil vapor downhill, especially over the two sewer lines that run along South Aurora Street, Columbia Street and Turner Place.

The report confirms that there is no groundwater plume to spread contamination, as is the case in Endicott. Instead, a horizontal "bedding plane fracture" in the rock below the reservoir creates a preferential pathway for contaminated water to spread.

The highest soil vapor reading for volatile organic compounds was at a manhole near the corner of Turner Place and Columbia where the NCR sewer and another sewer along Turner Place connect. At the site, Emerson's consultants recorded trichloroethylene, or TCE, at 18,900 micrograms per cubic meter and trichloroacetic acid, or TCA, at 22,000 micrograms per cubic meter.

TCE and TCA are chlorinated solvents, which can cause liver damage, headaches, nausea, dizziness and potentially cancer.

The "background" level for TCE that state officials consider omnipresent in urban, industrialized areas is 0.8 micrograms per cubic meter, said Karen Cahill, regional engineer and project manager for the Emerson site.

Other manhole and soil vapor air tests in the neighborhood below Emerson found TCE, TCA and a variety of other volatile organic compounds.

Morse Chain, the previous owner of Emerson Power Transmission, used metal degreasers containing volatile organic compounds until the late 1970s.

Emerson purchased the plant in 1983 and discovered contamination emanating from the reservoir in 1987. As the current owner, it is responsible for environmental cleanup.

With oversight from the New York State Department of Environmental Conservation, Emerson has been conducting a modified "pump and treat" system to remove contamination from the fire water reservoir continuously since 1996.

The most recent report, however, shows continuing high levels of volatile organic compounds in the reservoir and in the horizontal geological fracture, where contaminated groundwater has moved.

In two groundwater samples, Emerson's consultants found TCE at 8,300 and 100,000 micrograms per liter and 1,2-Dichloroethane at 3,600 and 12,000 micrograms per liter.

Ken Deschere, a South Hill resident and participant in a statewide vapor intrusion alliance, called the results from the firewater reservoir "depressingly high."

"The evidence shows that the fire reservoir doesn't seem to be getting any better," Deschere said.

Derek Chase, director of environmental affairs for Emerson, said the high volatile organic compound levels did not surprise him because the geology on South Hill makes it so difficult to remove contaminated water.

"The water comes very, very, very, very slowly. In another type of environment, a system like we have up on the hill, you could extract 20-30-40 gallons per minute. We're lucky to get a gallon a minute," Chase said. "When you have a fractured bedrock system like you find in Ithaca, it becomes very difficult, and it's a very slow process to get the contaminants out of all those little fractures, all those little cracks."

Diane Carlton, a DEC spokeswoman, said the pump and treat system is the standard used by the DEC throughout the state, but the agency would be willing to consider alternate remediation strategies.

Chase said Emerson will prepare a feasibility study in spring 2008 to evaluate other potential remediation strategies.

"You consider all available remedies. Those remedies as you go through the list, remedies ... get removed from active consideration," Chase said. "Usually they get removed from active consideration because they're not practical, because you can't implement them because of the way the site geology is or because they're so ungodly expensive."

The DEC and state Department of Health are hosting a meeting at 7 p.m. Thursday at Ithaca Town Hall, 215 N. Tioga St. Representatives from the state agencies will be available to answer questions one-on-one between 3 and 5 p.m.

Carlton said the meeting will not cover this newest report from Emerson because DEC officials have not yet had time to analyze it.

"We have not reviewed it. It's not going to be part of the discussion," she said. "It's not (included in Thursday's meeting) simply because we've not had enough time to thoroughly review it and make an intelligent analysis of that."

Carlton said the DEC will likely produce another Fact Sheet explaining the latest report once it has been analyzed. She would not estimate when that Fact Sheet would be available.

Rochester Democrat and Chronicle December 16, 2007

Vapor intrusion may be crucial test for DEC

By some accounts, New York is at the cutting edge on a hot-button environmental concern. Others say the state was tardy and has years of work to do.

At issue is vapor intrusion, a phenomenon in which chemical vapors can rise from underground contamination and accumulate in buildings, putting occupants at risk.

Under the state Department of Environmental Conservation's program, hundreds of sites around the state are under study for evidence of vapor intrusion.

To date, more than 1,200 homes or other buildings in New York have needed measures to alleviate toxic vapor intrusion. Nearly half are in Endicott, Broome County, where the vapor intrusion issue rose to prominence in 2003. Six are in Victor, where the DEC continues to explore groundwater contamination found in 1990.

But the program, begun soon after the extent of problems in Endicott became known, remains a work in progress. Studies have been completed at only about 20 percent of the old waste disposal sites that New York set out to examine.

Hundreds more sites, including dozens in the Rochester area, await a DEC assessment to determine whether building occupants have anything to fear from below-ground vapors.

Those efforts should have begun sooner, some say.

"It's really just a huge mistake on the agency's part," said Anne Rabe, a longtime environmental activist who is a campaign coordinator for the Center for Health, Environment & Justice.

"Under Governor (George) Pataki, there was a political determination to cut back on looking at off-site contamination. It was a more industry-friendly program. They cut corners, and they created these Endicott sites by not investigating vapor intrusion."

Denise Sheehan, the DEC commissioner in the last two years of the Pataki administration, said experts in New York and elsewhere did not recognize the threat posed by toxic vapors until a few years ago. "You have to respond to the science. Over the years, the science has changed," she said.

Current DEC commissioner Pete Grannis, appointed in April by first-year Gov. Eliot Spitzer, said he is not sure the agency was late getting to the issue.

"Should they have been more aggressive sooner? Possibly," said Grannis, who dealt with environmental issues as a member of the state Assembly. "I'm a big believer in us being ahead of the curve, (but) I don't think anybody truly understood the breadth of and the concerns about vapor intrusion."

Today, he said, the DEC has "the most far-reaching and aggressive vapor intrusion investigative program in the country."

Lenny Siegel, an environmental activist in California who advises groups about vapor intrusion, praised New York's program as "leading edge" at a recent public forum in Albany.

{}Issue developed slowly

For years, experts in New York and elsewhere had known that vapors from chemicals in the soil or groundwater could infiltrate buildings. Public health concerns at Love Canal in Niagara County in the late 1970s were based partly on fear of toxic vapors, and neighborhoods around Kodak Park in Rochester had extensive vapor-intrusion testing in the late 1980s.

During the 1990s, however, vapor intrusion remained a low-profile concern at New York toxic spill and dump sites.

That ended around 1999, when officials at the DEC and the state Department of Health took note of new findings in other states. This research held that vapors, especially from the industrial solvent trichloroethene, or TCE, were much more likely to rise through soil than had been thought. Research also showed that the method used to evaluate sites for vapor intrusion potential was inaccurate.

TCE, once widely used for metal degreasing and other purposes, may cause cancer and other health problems in people exposed to high-enough doses.

The vapor intrusion issue hit the headlines in New York in February 2003, when officials announced that testing had found TCE vapors seeping into the basements of homes and commercial buildings in Endicott from spills at a former IBM Corp. facility.

Later in 2003, the DEC and Health Department launched their major program to look for vapor intrusion at waste disposal sites, including 421 older sites where cleanup decisions had already been made.

DEC officials began poring through records of older waste sites, some of them uncovered two decades ago, to assess the possibility of vapor intrusion. Field testing often followed.

Evaluations have been completed at 89, or 21 percent, of the 421 older sites, according to a summary provided by the DEC Thursday. Work is under way at 66 percent of the sites and hasn't started at 13 percent.

Findings at more than 20 of the sites led to installation of ventilation systems to collect vapors from below basement slabs before they can enter the buildings{}.

Decisions about ventilation systems are based largely on field testing, which New York relies on more than some states. Vapor tests are done beneath the building foundation, in the basement and on the first floor.

In total, work to address vapor intrusion has been done at 1,240 structures in New York, according to a recent Health Department summary. Sub-basement ventilation systems have been installed at 972 homes or other residential buildings and at 32 commercial structures.

A first round of vapor testing was completed this fall at a Gates neighborhood where groundwater is contaminated with trichloroethene. The TCE came from a leaking storage tank discovered at a factory two decades ago.

Six homes in the neighborhood required ventilation systems, the DEC concluded, and more testing is planned.

"I'm not unduly worried," said Bill Winchell, who had nothing but praise for the state workers who plan to install a ventilation system under his basement.

"Having been here for 12 years, I never detected anything unusual, so it all came as a surprise that there's possibly a problem. That's what they're doing they're saying there's a remote possibility there's a problem, so let's fix it."

The Cincinnati Enquirer December 29, 2006

Long-buried waste emerging as danger

Geology appears to have contained chemicals' spread, but cleanup left to taxpayers

Miami Bluffs resident Karen Rizzo would be able to see the $1 million environmental cleanup project going on less than half a mile from her house if it weren't for the trees.

Until a reporter told her about it, Rizzo had no idea somebody buried more than 1,300 barrels of waste paint and solvents as much as 20 feet deep into a hillside along the Little Miami River.

The site at 6451 Striker Road is about 800 feet from the popular Little Miami bike trail.

More importantly, just across the trail lies the Deerfield-Hamilton well field, where a half-dozen wells serve as a major source of drinking water for fast-growing Warren County.

Air toxin monitors hang from the fenced-off site to protect workers as backhoes dig up crushed and rusted 55-gallon drums that environmental officials say contain a potentially dangerous mix of solvents and metals.

"It would have been nice if they would have told the homeowners association," Rizzo said. "None of us knew about it."

Since October, the U.S. Environmental Protection Agency has spent about $500,000 to remove partially filled 55-gallon drums buried there, officials say, by a defunct Sharonville manufacturing company. The cleanup is about 60 percent complete and is expected to cost $1 million before it ends in February.

Contamination includes trichloroethylene, a solvent that when found in high-enough doses in drinking water could damage the nervous system, liver and lungs. Some studies say long-term exposure could cause cancer.

Tests also document elevated levels of chromium, lead, toluene and xylene in the paint waste - all of which can be harmful.

"We want to make sure it doesn't get to the well field and contaminate the water supply," said Steven Renninger, the EPA site coordinator. "We're trying to get it out of here as quickly as possible. That's how important it is."

The good news is that the drinking water so far has been toxin-free.

The bad news is that taxpayers are footing the bill to clean up a mess they didn't make.

The site isn't the largest Superfund cleanup in Greater Cincinnati, nor an isolated case. It is, however, the latest example of how lax attention to environmental toxins for decades continues to have costly consequences.

In the past four years, federal workers have spent millions to haul away more than 3,000 buried drums of paint and toxins in growing suburban areas of Butler, Warren and Clermont counties. They also have removed more than 46,000 tons of contaminated soil from seven sites in those counties - including some subdivisions.

Drinking water is safe

The Rizzos were glad to hear that their drinking water is OK.

The Deerfield-Hamilton well field, on the verge of a major expansion, provides 5.2 million gallons of water a day to about 40,000 people in 14,500 Warren County homes and businesses.

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Experts say the buried barrels pose minimal health risks because of a favorable quirk of geology. The 3-acre site is separated from the much deeper well field by a layer of bedrock and clay that isolated the contamination, said Scott Glum, environmental specialist for the Ohio EPA.

The county dug monitoring wells between the hot zone and the well field 10 to 15 years ago when it learned of the problem and has run quarterly tests ever since.

"There's no evidence of it in our well field," said Richard Renneker, sanitary engineer for the county's Water and Sewer Department.

The Ohio EPA said it's unlikely the toxins would ever reach the drinking water. If the barrels had been buried deeper than 20 feet, it could have been worse.

"When we first found out, you immediately think the worst - highly toxic waste on the site and it's already released," Glum said. "But it looks like (the risk) wasn't as great as we feared."

How did this happen?

How could hundreds of tons of buried hazardous waste be left in the ground for more than 20 years when some officials knew about it for years, and why are taxpayers, rather than the company that buried it, paying to clean it up?

According to the EPA, the story began in the 1950s when the Kings Mills Ordnance Plant, which made ammunition for the Army, occupied the 110 acres tucked into the woods next to the river.

Starting in 1959, it sold off much of its property. Sharonville-based Diversified Products, a metal manufacturing company, bought 30 acres in 1974 to store drums of paint and solvents.

As early as the 1980s, the Ohio EPA investigated the company for improper above-ground storage. Then, the drums disappeared.

It wasn't until the mid-1990s, when the Army cleared out some nearby storage sheds, that workers found several partially buried drums sticking out of the hill.

The Army learned that more metal was buried at least 20 feet deep.

"That was the smoking gun," Glum said.

Near-surface groundwater tests - far above the level where the drinking water wells operate - showed high levels of contamination. The Army removed drums that were visible, but didn't excavate further.

The Army said it was Diversified Product's mess, so the company should pay to clean it up, according to the EPA.

The Ohio Attorney General's Office tried to prosecute Diversified Products.

Officials said the company ultimately admitted burying a few hundred drums there. But it went bankrupt in 1997.

It remains unclear exactly when the drums were buried - so it could not be determined whether the burial occurred before or after tougher environmental regulations went into place in 1980.

Therefore, no one was ever cited, according to the EPA.

The site sat in limbo for about another decade as the Attorney General's Office continued its investigation. The Ohio EPA was called in to begin cleanup efforts in 2005.

By that time, Warren County had installed its well fields just down the hill. A subdivision was built next door - Heritage at Miami Bluffs.

More houses were scheduled to be built nearby.

The barrels left to rust and leak underground for 20 years were suddenly considered an "emergency."

The cleanup

The state EPA called in the federal EPA, which supplied money for the cleanup from the federal Superfund, established in 1980 to clean up hazardous waste sites.

At first, the size of the problem was unclear.

"We suspected maybe a couple hundred drums," Glum said. "Turns out there were over 1,000. It looked like they'd buried stuff over a period of time on the property."

The property is hidden from the road. It is accessed through a rusty gate marked "warehouse" at a dead-end driveway past the Army Reserve.

Once inside, visitors can see a small parking lot with more than a dozen industrial-sized, tarp-covered dump bins - all destined for a hazardous-waste landfill in Detroit.

To get close to the 3-acre hot zone, people must ride in an enclosed golf cart.

Air-monitoring devices are attached to the earth-moving equipment and dot the fence surrounding the property.

In a muddy clearing, a backhoe operator wearing a respirator digs into the earth. Some of the dirt is tinged red, blue and gray from the contents of the rusty drums.

The backhoe transfers the waste to a smaller earthmover, which piles it all onto a huge tarp. From there it goes into the rolling bins to be trucked away.

Once the drums are removed, more tests will confirm whether all the contaminated soil is gone. If anyone ever wants to develop the property, a second cleanup would likely be needed.

Off the hook?

Dumping or burying hazardous material was not uncommon in the 1950s and 1960s, when there were no laws against it.

However, in 1980 strict regulations were enacted.

Federal EPA officials sent a letter in July to Larry Ball, of Mason, a former co-owner of the defunct Diversified Products. The letter notified him the company was responsible for paying for the cleanup.

"He basically said the company no longer exists," Renninger said.

When reached by The Enquirer, Ball said there was already a dump site on the property when the company took it over in 1974.

Ball said he doesn't know anything about barrels being buried there while his company used the land. He referred further questions to his attorney, who could not be reached.

A close call

In the meantime, nearby residents say as long as their water is OK, they aren't too concerned.

Paul Richardson, 67, said residents in his Miami Bluffs subdivision knew about a different cleanup project going on since 1996 at the long-abandoned Peters Cartridge Co. factory, but not this one.

A few years ago, they asked the Drees Co. - the home builder - whether there was a chance their drinking water could be tainted by the Peters factory waste.

"We had a meeting and asked about it. Drees said the drinking water was OK," he said.

Now, Richardson said he'll keep an eye on the Striker Road site, too.

Meanwhile, the Rizzos said they know what it's like to live near a dangerous place.

Before they moved here about a year and half ago, they lived about eight miles from the Aberdeen Proving Ground in Maryland, a military base where much of the nation's mustard gas was stored. The Army destroyed 1,600 tons of the poisonous chemical in a project that ended in 2005.

To them, everyplace is dangerous in its own way.

"I was shot and lived and now I might die from bad drinking water," John Rizzo said. "You get so you just don't think about it."

A history of the contaminated site

1959 - The 110-acre Kings Mills Ordnance Plant, formerly owned by the Army, was subdivided. The Army retained a portion of the site for storage, vehicle maintenance and to establish an Army Reserve Center. The other parcels were sold to private and commercial parties.

1974 - Sharonville-based Diversified Products began operating on 30 acres at the site, 6451 Striker Road, and continued to do so through the 1980s.

1981 - The Ohio EPA discovered soil contamination on the Diversified Products property during a routine field inspection. A decade later, the company admitted burying several hundred drums of paint waste.

1988 - Warren County commissioned a groundwater quality study of the area. Initial sampling identified 10 parts per billion of trichloroethylene, a dangerous chemical when found in drinking water, in the seep. Subsequent testing identified TCE levels as high as 178 ppb.

Mid-1990s - While conducting tests on its land, the Army discovered partially buried drums on Diversified Products land. The Ohio Attorney General's Office investigated.

1997 - Diversified Products filed for bankruptcy.

1998 - Diversified Products sold the property to current owner Thames River LTD for $80,000. Thames River leases buildings on the property for storage space.

June 2006 - The Ohio EPA asked the federal EPA Region V Emergency Response Branch to determine whether an immediate removal was warranted. OEPA said partially buried drums were visible at numerous locations at the site.

June 13 - The U.S. EPA investigated the site. Partially buried drums were identified at numerous locations in the 3-acre area. The drums were in varying stages of deterioration, with some still

containing waste. In addition to the TCE, tests found elevated levels of chromium, lead, toluene and xylene.

Oct. 10 - U.S. EPA removal action began. A site command post and site security was established. A contingency plan was completed.

Oct. 10-Nov. 3 - U.S. EPA did a geophysical survey, initiated air monitoring, removed 287 subsurface drums and initiated off-site disposal of wastes.

As of Dec. 19, more than 1,300 drums had been removed. Waste (drums and contaminated soil) is being transported to the EQ Landfill in Detroit.

About TCE

Trichloroethylene, also known as TCE, is a colorless liquid often used as a solvent for cleaning metal parts. It also is an ingredient in adhesives, paint removers, typewriter correction fluids and spot removers.

Drinking or breathing high levels can cause nervous system effects, liver and lung damage, abnormal heartbeat, coma and possibly death. TCE is listed by the International Agency for Research on Cancer as "probably carcinogenic to humans."

TCE has a sweet odor and sweet taste. It has been found in underground water sources and many surface waters as a result of the manufacture, use and disposal of the chemical.

TCE quickly evaporates in surface water but can remain in groundwater and soil for a long time.

People can become exposed by breathing TCE vapors, drinking, swimming or showering in contaminated water or coming into direct contact with TCE or TCE-contaminated soil.

Other cleanup sites

The Striker Road drum burial area is far from the only hazardous waste site in or near growing suburban areas of Butler, Warren and Clermont counties.

The long-abandoned Peters Cartridge Co. factory in Hamilton Township was declared a Superfund hazardous waste site in 1996 because of copper, lead and mercury contamination.

The practice fields of the nearby Kings Junior-Senior High School - land once owned by Peters and later used as a private shooting range - were closed in 2003 after soil samples revealed lead contamination. Cleanup there cost $2 million.

Fair Oak Park lead site - Excavation of 500 tons of lead-contaminated soil from a 14-acre county-owned neighborhood park at 2989 Fair Oak Park Road in Monroe Township, Clermont County. The land was formerly a shooting range. Cleanup was completed in September 2005.

Given Road lead site - Excavation of 11,974 tons of lead-contaminated soil from the Cincinnati Country Day School ball fields. The contamination came from shooting activities at the nearby Camargo Club. Excavation completed in July 2005.

Millikin Road lead site - Excavation of 6,666 tons of lead-contaminated soil from 10 acres of residential housing in Butler County. The land was a former skeet and trap shooting range. Cleanup conducted in 2003 and 2004

Brentwood Estates lead contamination site - Excavation of 3,730 tons of lead-contaminated soil from 6 acres in a Fairfield Township subdivision. The land was a former shotgun shooting range. Cleanup concluded in June 2005.

Herron Avenue drum site - Excavation of 3,350 drums of paint, solvent, petroleum and foundry sand waste from 4 acres that was to be developed into residential housing. The project concluded in 2004.

Lexington Manor lead site - Excavation of 23,500 tons of lead-contaminated soil from 25 acres (46 homes) in the subdivision now known as Liberty Estates in Liberty Township, Butler County. The soil was contaminated with lead, lead shot and arsenic from a former skeet shooting range. Cleanup concluded in 2004.