

FACT SHEET:

WALTER O. KRUMBIEGEL SCHOOL

Hillside Township, New Jersey



OVERVIEW

On Aug. 9 and 10, the New Jersey Department of Environmental Protection tested air inside the Walter O. Krumbiegel Middle School in Hillside for the presence of chemical vapors. Vapors from PCE, a chemical most often found in dry cleaning and degreasing products, were found in two samples that exceeded the DEP's level set for immediate active mitigation.

The New Jersey Department of Health would not expect adverse health effects to students or staff at the levels that were measured. Based on this information and steps outlined below that the DEP and DOH are taking to reduce potential exposure to students and staff, the Hillside School District has decided to open the school for the new school year on Sept. 5, as planned.

WHAT DID AIR SAMPLING SHOW?

The DEP collected 15 samples of air inside the school. PCE levels for 13 of the samples were below 30 micrograms per cubic meter, the level the DEP uses to determine if immediate active mitigation is necessary. For PCE, the DEP uses a screening level of 3 micrograms per cubic meter to determine that a vapor pathway exists and must be addressed. One sample from a first-floor classroom registered 32 micrograms per cubic meter. A sample from a custodial closet registered 97 micrograms per cubic meter. The others ranged from less than 1 microgram to 16 micrograms per cubic meter. *(See chart below.)*

Table 1:
Indoor Air Sampling Results

Sample Location	PCE (ug/m ³)
Art Room	3
Cafeteria Southern End	2
Duplicate Sample	3
Health Room	4
Under Stairwell Outside of Boiler Room	16
Cafeteria Center	3
Duplicate Sample	3
Gym	5
Duplicate Sample	4
Boiler Room Near Grate	13
Music Room	3
Closet in Crawl Space Room 39B	97
Room 34B	3
Stairwell #2	11
Stairwell #1	ND
Class Room #2	32
Auditorium	ND
Library	2
Class Room #5	ND
Outside in Rear Parking Lot	ND

ND: Not detected

WHAT IS THE SOURCE OF THE VAPORS AT THE KRUMBIEGEL SCHOOL?

PCE, also known as tetrachloroethylene, is present in groundwater beneath the school. The source of PCE in the groundwater is not known at this time. The school does not use this groundwater as a source of potable water. The DEP decided to sample the school after reviewing case files that indicated that groundwater at a site across Hillside Avenue, Supreme Security Systems Inc., was contaminated with PCE. Supreme Security is not the source of the PCE contamination.

HOW COULD PCE VAPORS ENTER THE SCHOOL?

PCE is a volatile chemical that evaporates easily. Vapors from the chemical in the groundwater are becoming trapped in microscopic pockets of air in soil beneath the school. The vapors can find their way into interior spaces through cracks in foundations or dirt floors. The levels of vapors in the soil beneath the school are significant, as high as 8,900 micrograms per cubic meter (*See chart below.*) The DEP is taking action to mitigate now because of the risk of indoor air levels of PCE increasing in the future.

Table 2:
Sub-Slab Soil Gas Sampling Results

Sampling Locations	PCE (ug/m3)
Middle of Floor in Boiler Room	4,500
Duplicate Sample	4,300
Health Room 40B	2,200
Outside Closet Under Stairwell	3,000
Duplicate Sample	2,900
Cafeteria	5,300
Duplicate Sample	6,200
Music Room Near Gym	670
Pit in Boiler Room	7,000
Duplicate Sample	8,900

WHAT'S NEXT?

- The two locations that exceeded the DEP's mitigation standard – the first-floor classroom and the custodial closet – will be addressed first. A DEP contractor, Clean Venture Inc., will be sealing foundation cracks and covering sections of crawlspace areas with a spray-on sealant. The contractor is also providing in-room air filtration units. This work is expected to be completed before school starts.
- The DEP and Clean Venture are also developing a plan for installation for a permanent sub-slab depressurization system that will draw vapors from the soil beneath the school and vent them safely to the atmosphere. The system will be very similar to those used to protect properties against radon gas. Installation of the system will be done as expeditiously as possible, using state funds.
- The DEP and Department of Health will continue to monitor air quality and progress in installing the long-term mitigation system, and will work with the school district to keep parents and guardians informed.
- The DEP will conduct an investigation in an attempt to determine a source for the PCE in the groundwater.
- The DEP is also contacting nearby property owners, requesting access to conduct similar testing.

RESOURCES

For information on sampling and mitigation work, contact Heather Swartz of the DEP's Office of Community Relations at (609) 984-7135 or Heather.Swartz@dep.state.nj.us

For the DEP's Vapor Intrusion Technical Guidance, visit: www.nj.gov/dep/srp/guidance/vaporintrusion/

For more Department of Health facts about PCE, please visit:
www.nj.gov/health/ceohs/documents/pce_factsheet_krumbiegel.pdf

The DEP will post updates at: www.nj.gov/dep/srp/community/whatsnew.htm