



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

June 7, 2016

Curtis Griffin, Ed.D.
Superintendent of Schools
Hatboro-Horsham School District
229 Meetinghouse Road
Horsham, PA 19044

Re: February 2016 Sampling of the Crooked Billet Elementary School
Meadowbrook Avenue Vapor Intrusion Site
Hatboro, Montgomery County, Pennsylvania

Dear Dr. Griffin:

In February 2016, the United States Environmental Protection Agency (EPA) conducted a second round of sampling at the Crooked Billet Elementary School to further evaluate the potential for vapor intrusion at the school. Vapor intrusion (VI) is the term used to describe the migration of chemical vapors from subsurface contaminated soils and groundwater into the indoor air spaces of overlying buildings through openings in the building foundation. Common sources of VI include petroleum products, dry cleaning solvents, and other industrial solvents and degreasers. Hatboro officials requested EPA's assistance in evaluating VI in response to concerns regarding the school's proximity to the Raymark Superfund Site and other potential sources of contamination in the surrounding area.

The recent sampling conducted at the school included the 24-hour collection of indoor air, crawl space air, sub-slab vapor, ambient (outdoor) air samples and quality control samples at the same locations sampled by EPA in March 2015. The list of volatile organic compounds (VOCs) to be analyzed by the laboratory was reduced, based on the chemicals that were identified during the initial sampling. Air monitoring was conducted throughout the building to evaluate conditions at the time of the sampling and to identify any potential indoor sources of VOCs. No elevated levels of VOCs were detected during the air monitoring.

The February 2016 sampling results were consistent with and confirm the results of sampling conducted in March 2015. VOCs were found in the air samples collected from the ambient, indoor, crawl space and sub-slab. As before, the results are what we expected and represent common ambient and indoor air contaminants. However, chlorinated VOCs, including trichloroethene (TCE) and tetrachloroethene (PCE), were detected in some of the sub-slab samples, crawl space and indoor air samples, but the results were below levels of concern.

EPA and the Agency for Toxic Substances and Disease Registry (ATSDR) reviewed the sampling results and have found that exposure to the VOCs, including the chlorinated VOCs, at

the reported levels in indoor and ambient air are not expected to result in adverse health effects in children or adults. ATSDR is a federal public health agency under the U.S. Department of Health and Human Services that provides assistance to EPA in evaluating potential human health risks associated with exposure to environmental contaminants.

The enclosed Trip Report (June 2016) provides a detailed summary of the sampling activities and includes the final validated results. Additional information regarding the chemicals detected is included in the attached Meadowbrook Avenue Site Trip report Supplement (May 2016).

In summary, under current conditions vapor intrusion is not a concern at the school. The two rounds of sampling conducted by EPA did not identify VOCs at concentrations in indoor air that present a health concern. As such, no further sampling is recommended at this time. EPA recommends that the school consider vapor intrusion mitigation measures if major renovations and/or new construction takes place in the future.

Please do not hesitate to contact me at 215-814-3124 with questions you may have regarding this matter.

Sincerely,

A handwritten signature in black ink that reads "Kelley Chase". The signature is written in a cursive, flowing style.

Kelley Chase
EPA On-Scene Coordinator

Enclosures

cc: Kelli Sendel, Principal Crooked Billet School
Karl V. Markiewicz, PhD (ATSDR)
Kyle Schmeck (Montgomery County Health Dept.)
Colin R. Wade (PADEP)
Alex Mandell (EPA)