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Health Consultation:
"Belgravia (Factory Condominiums)
South Haven, Van Buren County, Michigan"

EXECUTIVE SUMMARY

The Michigan Department of Environmental Quality (DEQ) requested that the Department of Community Health (DCH) determine the public health risks at the Belgravia site in South Haven. The Belgravia site is a former factory that has been developed into residential condominiums and a health club. Contamination from past businesses remains in the soil and groundwater.

The main chemicals of concern are chlorinated solvents: trichloroethylene (TCE) and its breakdown products. Other contaminants present include petroleum hydrocarbons, polycyclic aromatic hydrocarbons, and metals. Although it appears, at this time, that no one is coming into harmful contact with these chemicals, there is a possibility that a health hazard may occur in the future.

DCH is concerned that, even though the backyard of the property is off-limits, people may still access this area and be exposed to very high concentrations of TCE and xylenes, or "free product," in the soils. The "free product" is in deeper soils (at least 17 feet below surrounding grade) and not near the soil surface, but excavating or landscaping may undercover areas of heavy contamination. If people come into contact with the "free product" even for a short duration, they may experience skin effects, particularly a drying of the skin, or dizziness or a headache, from breathing the vapors. The backyard should remain off-limits until the "free product" is addressed.

The contamination in the soil may migrate as vapors through the soil and enter the indoor air in the residential portion of the building at the site or in neighboring homes. This is called "vapor intrusion." The vapors can also enter outdoor air directly from the soil and affect air quality both outside and indoors. Corrective measures have been taken to reduce the likelihood of vapor intrusion in the health club and at several neighboring homes. However, there is a possibility that vapor intrusion could occur in the residential portion of the Belgravia building. Long-term exposure to TCE and its breakdown products may increase a person's risk for several types of cancer. Soil gas sampling underneath the residential portion of the building at the Belgravia site should be conducted, to determine the likelihood of vapor intrusion. Outdoor air sampling should occur as well, especially if any excavating is done.

Potentially harmful exposures should be prevented. This can be done by establishing deed restrictions; educating utility, construction, and remediation workers; or remediating the site.

The full health consultation is available at the DCH website: www.michigan.gov/mdch-toxics, under "Health Assessments and Related Documents."