



STATE OF MICHIGAN

DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

GRETCHEN WHITMER
GOVERNOR

ROBERT GORDON
DIRECTOR

DATE: February 11, 2020

TO: Matt Bolang, Director of Environmental Health, Livingston County Health Department

FROM: Jacob Carrick, Toxicologist, Vapor Intrusion Unit, Michigan Department of Health and Human Services

A handwritten signature in cursive script, appearing to read "Jacob Carrick".

SUBJECT: MDHHS Public Health Recommendations for the Diamond Chrome Plating Site in Howell, MI

On 11/18/2019, MDHHS sent a letter health consultation to the Livingston County Health Department (LCHD) stating that trichloroethylene (TCE) levels detected in ambient air near the Diamond Chrome Plating (DCP) facility in Howell, Michigan posed an imminent danger to residents. LCHD responded by issuing a public health order later that day. The LCHD order required that DCP (1) halt emissions of TCE at the facility, (2) demonstrate that TCE levels in ambient air have been reduced and no longer present a public health hazard, and (3) cooperate with LCHD, MDHHS, EGLE, and the USEPA to assess, mitigate, and eliminate the hazard posed by the contamination. Since the order was issued, DCP has taken steps to prevent the release of TCE to the ambient air, including replacement of the TCE degreasing fluid with a product that does not contain TCE.

Despite the actions taken by DCP, MDHHS has remaining uncertainty about whether additional DCP-related sources of TCE may be present at the site. **MDHHS recommends that LCHD keep the current public health order in place until sufficient ambient air data have been collected to provide confidence that ambient air TCE levels have been reduced and will continue to remain below health-protective screening levels.** In order to recommend removal of the public health order, MDHHS would require multiple rounds of ambient air data of sufficient temporal and spatial coverage demonstrating that TCE no longer poses a public health hazard. See discussion below for details of the proposed MDHHS sampling plan.

Data and Discussion

Since the public health order was issued, several rounds of ambient air data have been collected:

Ambient air sample date	Max TCE ($\mu\text{g}/\text{m}^3$)
Residential RIASL	2
Residential TSRIASL	6
11/19/2019	1.8
11/20/2019	1.8
11/21/2019	3.5
11/22/2019	2.14
12/05/2019	ND

Although TCE levels in the ambient air have been reduced from the previous maximum level of $22 \mu\text{g}/\text{m}^3$ detected on 11/04/2019, there have been detections of TCE as high as $3.5 \mu\text{g}/\text{m}^3$.

MDHHS has concerns about other potential sources of TCE associated with DCP. One potential source of TCE at the site is the evaporator/dryer component of the groundwater treatment system which may allow TCE to evaporate from contaminated groundwater into the air. Another concern is the possibility that additional sources of TCE may be introduced or reintroduced in the future.

Proposed Sampling Plan

In order to verify that TCE in the ambient air no longer poses a health hazard to residents near the DCP facility, MDHHS plans to hire a contractor to collect ambient air data. The sampling plan and timeline are still in development, but the work will likely consist of at least three sampling events: one as soon as the contract is secured, one approximately 1-2 months later, and one during the summer. Each round is expected to include 5-8 sample locations throughout the community, including samples near the closest homes to the north and east, near the baseball field to the west, near the railroad tracks to the east, and in locations modeled to have highest impacts from facility emissions. MDHHS will work with the contractor to determine exact sample dates, and identify appropriate sample locations.

Conclusion

Due to uncertainty about potential DCP-related sources of TCE that may remain at the site or that may be introduced in the future, MDHHS recommends that LCHD keep the public health order for the DCP facility in place until a more robust ambient air dataset can be collected to verify that TCE in ambient air does not pose a risk to residents. MDHHS is currently acquiring a contractor to develop a sampling plan and perform ambient air sampling. MDHHS proposes that an acceptable basis for removal of the public health order would be three rounds of ambient data which are collected between now and Summer 2020, and which show TCE below health-protective levels in areas of greatest public health concern and community interest. This plan is subject to reevaluation as data are collected.

MDHHS will keep LCHD informed as new data are collected and as any changes are made to the current MDHHS recommendations. Please contact Jacob Carrick at carrickj@michigan.gov or 517-284-4803 if you have further questions.