

**State of New Jersey****DEPARTMENT OF HEALTH**

CONSUMER, ENVIRONMENTAL AND OCCUPATIONAL HEALTH SERVICE

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*Governor*KIM GUADAGNO
*Lt. Governor*CATHLEEN D. BENNETT
Commissioner

November 18, 2016

Sandy Marinos
Supervisor of Facilities & Security
Glen Rock Board of Education
620 Harristown Road
Glen Rock, NJ 07452

Re: Glen Rock High School, August/September 2016 Indoor Air Investigations

Dear Ms. Marinos:

At the request of the Glen Rock Board of Education (Glen Rock BOE), the Department of Health (DOH) has reviewed indoor air quality (IAQ) investigation data conducted at the Glen Rock High School located at 400 Hamilton Avenue in Glen Rock, New Jersey. This IAQ investigation was conducted in August and September 2016 at the request of Glen Rock staff. IAQ data was provided by Glen Rock BOE's consultant, McCabe Environmental Services, LLC to the DOH via email on October 24, 2016.

Based on our review of the IAQ data, 1,2,4-Trimethylbenzene (1,2,4-TMB) exceeded the current United States Environmental Protection Agency's (EPA) reference concentration (RfC) of 60 $\mu\text{g}/\text{m}^3$ within the school's media center for both the August and September 2016 sampling events. There were no other compounds detected which exceeded EPA RfC values nor the New Jersey Department of Environmental Protection's (DEP) Residential Indoor Air Screening Levels (RIASL).

An RfC is defined by EPA as an estimate of a continuous inhalation exposure concentration to a human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. Based on our exposure assessment which accounts for adjusting the exposure dose in relation to time spent within the Glen Rock High School, the DOH does not expect any adverse health effects to occur based on the observed concentrations of 1,2,4-TMB detected during the August and September 2016 sampling events.

Additionally, it has been brought to our attention that employees of the Glen Rock Public Schools District are concerned about indoor air concentrations of Benzene detected during the two IAQ investigations. Upon DOH review of the IAQ data,

Benzene was not found to exceed the DEP's RIASL. Further, the detected concentrations of Benzene are well within the mean ambient air concentration for Bergen County, New Jersey based on the EPA's National Air Toxics Assessment published in 2011 (available on our DOH website)¹.

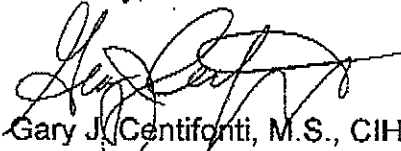
1,2,4-TMB is used primarily as a gasoline additive and is a known by-product of combustion. Other sources for this compound include various solvents, paint thinners, cleaners, pesticides, dyes, fragrances, perfumes, degreasing agents, sterilizing agents, synthetic wood products, printing operations and inks. 1,2,4-TMB has not been classified as a carcinogen according to the World Health Organization's International Agency for Research on Cancer nor the EPA.

While the concentration of 1,2,4-TMB does not present a health concern, the following actions are recommended to be taken at the school:

- 1) A visual inspection of the inventory of products within the media center should be conducted to determine whether any products containing 1,2,4-TMB are present and, if present, should be considered for removal or relocation to custodial storage areas.
- 2) Any product containing 1,2,4-TMB that is currently in use at the school should be stored in an airtight container or in a ventilated storage cabinet.
- 3) An increase in air exchange rates for the media center may be considered to help reduce the level of 1,2,4-TMB.

If any new information becomes available or conditions change, the DOH will provide guidance as appropriate. If you have any additional question or concerns, please contact Mr. Keith Bobrowski or Mr. Glenn Pulliam at (609) 826-4950.

Sincerely,



Gary J. Centifonti, M.S., CIH
Acting Program Manager
Environmental and Occupational Health
Assessment Program

c: Keith Bobrowski, Consumer, Environmental and Occupational Health Service
Glenn Pulliam, Consumer, Environmental and Occupational Health Service

¹ https://www26.state.nj.us/doh-shad/indicator/complete_profile/Benzene.html