

January 6, 2020

Ms. Lameka Augustin  
School Business Administrator/Board Secretary  
Faust School - Board Office  
100 Uhland Street  
East Rutherford, New Jersey 07073

Dear Ms. Augustin,

This report summarizes our professional opinions and recommendations associated with the recent discovery that the gymnasium at the McKenzie School contains a mercury catalyzed rubberized floor, our review of previous reports from other consultants, and our December 5, 2019 site inspection and air monitoring conducted within the McKenzie gym and surrounding areas.

Our review of the June 2019 bulk sampling results collected by EnviroVision Consultants reveal that the rubberized floor contains 75 to 750 mg of mercury per kilogram. The air sampling findings from the July 11, 2019 sampling with the air handler deactivated revealed airborne mercury levels ranging between 3.0 to 3.8  $\mu\text{g}/\text{m}^3$  which is above the NJ Department of Health's guidance of 0.8  $\mu\text{g}/\text{m}^3$  for these gyms. The air sampling conducted on August 2, 2019 with the air handler and air conditioning operating revealed airborne mercury levels ranging between 0.75 and 1  $\mu\text{g}/\text{m}^3$ ; approximately equivalent to slightly above the NJ Department of Health guideline for mercury in gyms. Since receiving those reports the East Rutherford Schools modified HVAC operation parameters to 24/7 occupied mode and lowered thermostat settings to approximately 64-68°F to help reduce emissions and accumulations of mercury vapors within the gym. Daily HVAC inspections and temperature monitoring procedures were also updated. Additional monitoring on October 15, 2019 by EnviroVision Consultants revealed airborne mercury levels within the gym ranging between approximately 0.3 to 0.4  $\mu\text{g}/\text{m}^3$  within the gym and lower levels in surrounding classrooms and hallways.

[ESMCCorp](#)'s findings from our December 5, 2019 inspection and air monitoring revealed that airborne mercury levels within the gym during normal use averaged 0.14  $\mu\text{g}/\text{m}^3$  with a maximum of 0.23  $\mu\text{g}/\text{m}^3$  during the monitoring period. Airborne mercury levels in surrounding 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> floor classrooms and hallways were comparable to outdoor levels averaging 0.07  $\mu\text{g}/\text{m}^3$ .

Based upon these findings, it is our professional opinion that airborne mercury levels within the McKenzie gym at the time of our December 2019 inspection with air handlers running in the 24/7 occupied mode were approximately 1/4<sup>th</sup> the NJDOH guidelines and do not present an elevated health risk to students, staff or visitors at this time. Monthly air monitoring should continue over the course of the remainder of the 2019/20 academic year as well as summer 2020 to determine best management practices, HVAC operating parameters and the potential to maintain safe levels under the range of outdoor air temperatures, heating and cooling cycles and soil temperatures.

Thank you for the opportunity to assist you with the evaluation. Please contact me with any questions.

Sincerely,

*Richard M. Lynch*

Richard M. Lynch, Ph.D., CIH, FAIHA, CMC, CMRS, CHFM

*Certified Industrial Hygienist*

*Certified Microbial Consultant*

*Certified Microbial Remediation Supervisor*

*Certified Healthcare Facility Manager*

President

Environmental Safety Management Corporation