Environmental Safety Management Corporation
AIR QUALITY, MOLD TESTING, ERGONOMICS, OSHA

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September 3, 2021

Dr. Tracy Handerhan,
Superintendent
Wall Township Schools
1620 18th Ave
Wall Township, NJ 07719

Dear. Dr. Handerhan,

This report summarizes the results of our August 26-27, 2021 monitoring of the Wall Township High School Gym for airborne mercury vapors. The purpose of this monitoring was to determine airborne mercury levels within the gym in preparation for return to in-person teaching and learning scheduled for September 2021.

Evaluation criteria and methods are identical to those previously reported and will not be repeated herein.

I. Methods

The following methods were followed during this assessment:

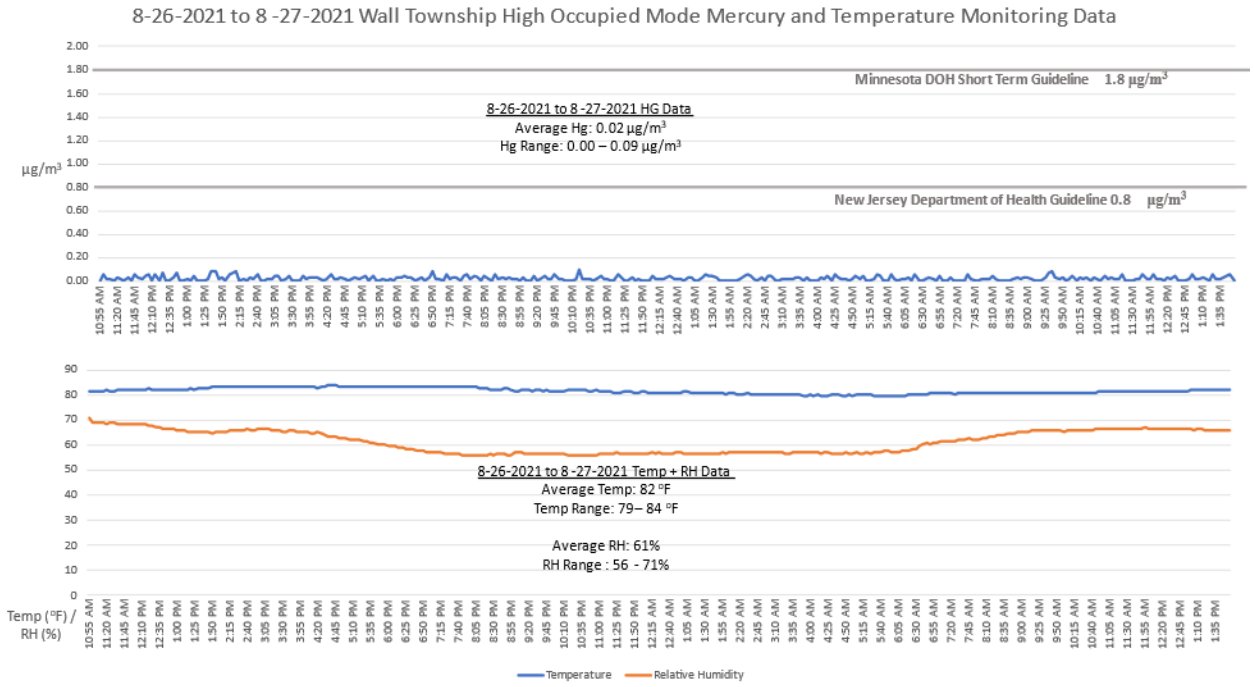
- Continuous air monitoring was conducted within the gym between approximately 10:55AM on August 26th, 2021 and 1:55 PM on Aug 27th, 2021.
- All mercury air monitoring was conducted using a calibrated Jerome J505 Mercury Vapor Analyzer with a reported detection limit of 0.05 µg/m^3 which reads as low as 0.00 µg/m^3 with a resolution of 0.01.
- Temperature and humidity were measured using a TSI Q Trak VelociTrak IAQ Meter

II. Findings

Findings revealed the following:

- Outdoor airborne mercury was at approximately 0.01 micrograms per cubic meter (µg/m^3). Outdoor temperature was as high as 92^{o}F during the monitoring period.
- Airborne mercury levels measured at the gym center between August 26th, 2021 and Aug 27th, 2021 **averaged, 0.02 µg/m^3 (range 0.00 - 0.09 µg/m^3)**; well below the NJDOH Guideline of 0.8 µg/m^3. Gym temperature averaged 82^{o}F (range 79 - 84 ^{o}F) during this monitoring period. Relative humidity within the gym averaged 61% .

Figure #1 below displays the results of the mercury, temperature, and humidity findings over the monitoring period.



III. Conclusions and Recommendations

Based upon the above, airborne mercury levels within the Wall Township High School gym during between August 26- 27, 2021 averaged 0.02 ug/m^3 with a maximum of 0.09 ug/m^3; significantly lower than the NJ Department of Health guideline of 0.8 ug/m^3.

Recommendations

1. Continue to operate the gym's air handling unit in the 24/7 occupied mode.
2. Periodic non-abrasive custodial cleaning of the gym should continue.
3. Our next monitoring will be conducted in November 2021.

Thank you for the opportunity to assist you with the evaluation. Please contact me with any questions at (856)764-3557.

Sincerely,
Richard A. Lynch
Richard A. Lynch, MBA, CIEC
Industrial Hygienist
NJ Licensed Indoor Environmental Consultant
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Reviewed and Authorized:
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Certification of Instrument Calibration

RMA # 2796776

Environmental Safety Management Corp
21 E. Scott Street
Riverside, NJ 08075

This is to certify that the Jerome **J505-0005** Atomic Fluorescence Mercury Analyzer, Serial Number **50500325**, was calibrated with standard units traceable to NIST.

Calibration Status as Received: **Out of Calibration**

	Actual	Calibration Gas	Allowable Range
Incoming:	28.21 µg/m3 Hg 0.74 % RSD	25.00 µg/m3 Hg	22.50 - 27.50 µg/m3 Hg <5%
Outgoing:	24.77 µg/m3 Hg 0.65 % RSD	25.00 µg/m3 Hg	23.75 - 26.25 µg/m3 Hg <3%
Calibration Verification:	µg/m3 Hg % RSD	0.300 µg/m3 Hg	0.255 - 0.345 µg/m3 Hg <15%

Calibration Status as Left: **In Calibration**

Estimated Uncertainty of Calibration System: 3.5%

Calibration Date: 22-Jan-2021 Recalibration Date: 21-Jan-2022

Temperature °F: 71.10 % Relative Humidity: 42.00

Approved By: Cheryl Hradek Date Approved: 10-Feb-2021
Title: Cheryl Hradek - Quality Control

Equipment Used:

Permeation Tube: S89-56804 **NIST#:** ISO13265: 072958
Calibration Date: 21-May-2020 **Calibration Date Due:** 21-May-2021

DynaCalibrator: M-1878 **NIST#:** 19-2985
Calibration Date: 30-Sep-2020 **Calibration Date Due:** 30-Sep-2021

Digital Multimeter: 66961028 **NIST#:** 7003135
Calibration Date: 24-Feb-2020 **Calibration Date Due:** 24-Feb-2021

Mass Flow Controller: 63665 **NIST#:**227080
Calibration Date:27-Mar-20 **Calibration Date Due:** 27-Mar-21

Calibration Procedure Used: 730-0165

AMETEK Brookfield certifies that the above listed instrument meets or exceeds all published specifications and has been calibrated using standards whose accuracy is traceable to the NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY within the limitations of the Institute's calibration services, or have been derived from accepted values of natural physical constants, or have been derived by the ratio type of self-calibration techniques.
Disclaimer: Any unauthorized adjustments, removal or breaking of QC seals, or other customer modifications on your Jerome Analyzer WILL VOID this factory calibration, because any of the above acts could affect the calibration and readings of the instrument. Further, AMETEK Brookfield WILL NOT be responsible for any liabilities created as a result of using the instrument after such adjustments, seal removal, or modifications.