MERCURY IN GYM AIR – REMEDIATION BENCHMARKS

This May 9, 2018 fact sheet updates and supersedes benchmarks referenced in the mercury guidance documents posted at https://www.njea.org/alert-mercury-hazard-staff-students-rubber-like-floors-schools/. All other posted information and recommendations remain unchanged.

Definitions

- ***Clearance level****:* The maximum acceptable post-remediation concentration,indicating that further environmental cleanup is not warranted.
- ***Background level****:* The airborne concentration in indoor locations presumed to not be impacted by on-site or off-site contamination, measured at time of bulk sampling of floor.
- ***Units of measurement:*** 1 nanogram (ng) = 0.001 micrograms (µg).
  1 microgram (µg) = 1,000 nanograms (ng).

Table 1: NJEA/HSN/WEC Maximum Acceptable Concentrations in Air

Immediately outside containment area, to monitor potential fugitive emissions	background level
Abatement area post-abatement (clearance level)	background level

Table 2: Additional Recommendations for Maximum Concentrations

California Office of Environmental Health	60 ng/m^3	0.06 µg/m^3
US EPA (lifetime exposure)	300 ng/m^3	0.3 µg/m^3
Minnesota Dept. of Health (chronic, 16-40 hours/week exposure)	750 ng/m^3	0.75 µg/m^3
NJ Dept. of Health	800 ng/m^3	0.8 µg/m^3
Minnesota Dept. of Health (acute, 1 hour exposure)	1800 ng/m^3	1.80 µg/m^3

Table 3: Instrument/Lab Lowest Limit of Detection (Sensitivity)

Lumex 915+ mercury vapor analyzer	2 ng/m^3	0.002 µg/m^3
Lumex 915M mercury vapor analyzer	2 ng/m^3	0.002 µg/m^3
Jerome J405 mercury vapor analyzer	500 ng/m^3	0.5 µg/m^3
Jerome 431-X mercury vapor analyzer	3000 ng/m^3	3 µg/m^3
Typical laboratories (using NIOSH method 6009)	220 – 3150 ng/m^3	0.22 - 3.15 µg/m^3
Wisconsin Occupational Health Lab (NIOSH6009)	100 ng/m^3	0.1 µg/m^3