

B. Bernice Young School Gym Floor Replacement Update – February 8, 2017
EXECUTIVE SUMMARY PROVIDED BY CONSULTANT

The Burlington Township School District is planning to remove and replace the rubberized gym floor in the Bernice Young School during the summer of 2017. In preparation for the removal project, our consultants informed us that many older rubberized floors often contain low levels of mercury used in the original installation, which may impact demolition waste disposal requirements. Based upon this information, the District engaged the professional services of a Certified Industrial Hygiene consultant to; 1) monitor the gym and surrounding areas for mercury vapor, and 2), prepare a specification for removal of the floor that captures any demolition dusts, and sample the waste for proper waste characterization and disposal in accordance with local, state and Federal law.

Mercury Exposure Guidelines for The General Public and Schools

Because mercury is a metal typically encountered in homes, schools, offices and industrial workplaces from use in many consumer products including lightbulbs, electronics, thermostats, batteries and other products, the US EPA and other Government regulatory agencies have determined that members of the general public including children, pregnant women and the most sensitive members of the population can safely breathe an average of 0.3 micrograms of mercury per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over a lifetime of exposure with no expected adverse effects. Exposure guidelines for schools recommend that students and gym teachers inhale less than an average of $0.75 \mu\text{g}/\text{m}^3$, with short term levels less than $1.8 \mu\text{g}/\text{m}^3$.

No Mercury Hazard at Bernice Young School

Air monitoring was conducted by an Independent Certified Industrial Hygiene consulting firm throughout the gym and surrounding hallways and classrooms on January 11 and 12, 2017 to determine airborne mercury levels during ventilated and unventilated conditions. Findings revealed that airborne mercury levels in the gym during occupancy mode under normal gymnasium ventilation averaged only $0.36 \mu\text{g}/\text{m}^3$ (approximately the level that EPA indicates as a safe exposure over an entire lifetime). Airborne levels during unventilated (worst case conditions) averaged only $0.63 \mu\text{g}/\text{m}^3$. Both the occupied and non-occupied unventilated conditions were well below the recommended average of $0.75 \mu\text{g}/\text{m}^3$ for school students and teachers. **No hazard from mercury is indicated.**

January 11-12, 2017 – B. Bernice Young School Mercury Monitoring Results

Location/ Ventilation Mode	Average Airborne Mercury Level ($\mu\text{g}/\text{m}^3$)
Gym Unventilated (unoccupied mode)	0.631
Gym Ventilated (normal occupied mode)	0.357
US EPA Average Mercury Exposure Guideline for Gym Teachers and Students	0.750

Next Steps

The district will conduct periodic monitoring of the gym until the floor is removed. We are working with the CIH Consultant and Construction Manager to develop a specification for safe removal of the floor, capture of dust, waste classification and proper waste disposal. Please contact Superintendent MaryAnn Bell with any questions at mbell@burltwpsch.org.