

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Bureau of Waste Reduction & Recycling

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March 21, 2023

RE: Mercury-containing Flooring in Public and Non-public Elementary and Secondary Schools

To Whom It May Concern:

On November 25, 2019, the Environmental Conservation Law (ECL) was amended by adding Section 27-2119, which addresses mercury-containing flooring in public or non-public elementary or secondary schools. Specifically, the law:

- Defines mercury-containing floor as a floor containing phenyl-mercuric-acetate (PMA) as a catalyst.
- Prohibits a public or non-public elementary or secondary school from installing a mercury-containing floor.
- Prohibits a public or non-public elementary or secondary school from installing a floor over a mercury-containing floor prior to removal of the mercury-containing flooring.
- Sets a time-weighted average mercury (Hg) vapor exposure limit for employees or students of a public or non-public elementary or secondary school not to exceed 750 nanograms per cubic meter (ng/m^3), where the time-weighted average shall mean an employee's average airborne exposure in an eight-hour work shift of a forty-hour work week, or for a person under the age of eighteen shall mean sixteen hours or less per week averaged over the school year.

To address the presence of mercury-containing flooring in public and non-public elementary and secondary schools, the New York State Department of Environmental Conservation (NYSDEC), in cooperation with the New York State Education Department (NYSED), the New York State Department of Health (NYSDOH), and the New York City Department of Education (NYCDOE) ("the agencies"), is notifying public and non-public elementary and secondary schools of the law and its requirements, and is providing guidance in circumstances when the presence of mercury-containing flooring is, or needs to be confirmed.

The flooring prohibited from being installed or covered over is a type of resilient flooring that can be characterized as rubber-like material (i.e., not wood, linoleum, or vinyl tile). Such floors were generally installed by pouring liquid polyurethane over a concrete sub-floor but may have been installed as sheets or rolls. The polyurethane flooring was cured (hardened) using a mercury compound, phenyl mercuric acetate (PMA), as a catalyst. From the early 1960's through the early 2000's, PMA-catalyzed polyurethane floors were installed in various facilities including school multipurpose rooms, gyms, cafeterias, auditoriums, stages, and indoor tracks.

To help determine the presence of mercury-containing flooring, school administrators can reach out to buildings and grounds staff, athletic and physical education departments, and theatre and performing arts department staff, or others who may have knowledge of the age and types of flooring installed in their respective areas. An inspection of building records may be needed to determine if a mercury-containing floor has previously been covered up by a subsequent floor installation. Even if a mercury-containing floor was covered, there may still be mercury-related exposure and disposal concerns.

Identifying mercury-containing flooring

Mercury-containing floors may be:

- rubber-like and water-resistant
- seamless and poured in place, or installed as sheets
- smooth, stippled, or mesh-like texture
- covered by another flooring material

Mercury-containing floors contain PMA as a catalyst. There were numerous manufacturers of PMA-catalyzed polyurethane flooring. However, ruling out a floor based solely upon the manufacturer may not be appropriate. It should also be noted that not all floors that meet the above profile necessarily contain mercury, and not all floors that incorporated PMA emit mercury vapor.

For schools that do not have any mercury-containing floors, no further action is needed.

Ideally, schools will confirm which, if any, areas of their schools have the flooring types referred to in ECL 27-2119 that contained PMA as a catalyst. Schools that have or, are uncertain if they have flooring that contained PMA should contact the NYSDEC or the NYSDOH to explore what actions should be taken to comply with the 2019 law. Examples of potential actions are listed below.

- For schools that are uncertain of the composition of one or more floors, testing, floor condition, and area ventilation may help determine if further actions are needed.
- For schools that are certain they have one or more floors that contained PMA, testing, changes to ventilation and costs for eventual removal will need to be assessed and considered. Schools that make the decision to remove mercury-containing flooring will need to make a hazardous waste determination as to whether the material would need to be disposed of as hazardous waste. Please contact the NYSDEC's Bureau of Hazardous Waste and Radiation Management at 518-402-8652 or info.sgg@dec.ny.gov for additional guidance.

New York State Public Health Law requires the use of laboratories and methods certified by the NYS Environmental Laboratory Approval Program (ELAP) for the analysis of air samples collected to determine the presence of mercury. Information on ELAP-certified laboratories and methods are available from ELAP at (518) 485-5570 or elap@doh.ny.gov.

NYS DOH can provide technical assistance to schools regarding the type of testing needed to determine the presence of mercury vapor and interpretation of results relative to the need for further action. Schools are encouraged to use the enclosed Decision Tree to determine the appropriate actions that should be taken to comply with the law. Please refer questions regarding this guidance to the NYSDOH by email at btas@health.ny.gov or by telephone at (518) 402-7800, or NYSDEC at (518) 402-8706 or via email at pswr@dec.ny.gov.

Sincerely,

A handwritten signature in cursive script that reads "Katie Kidalowski".

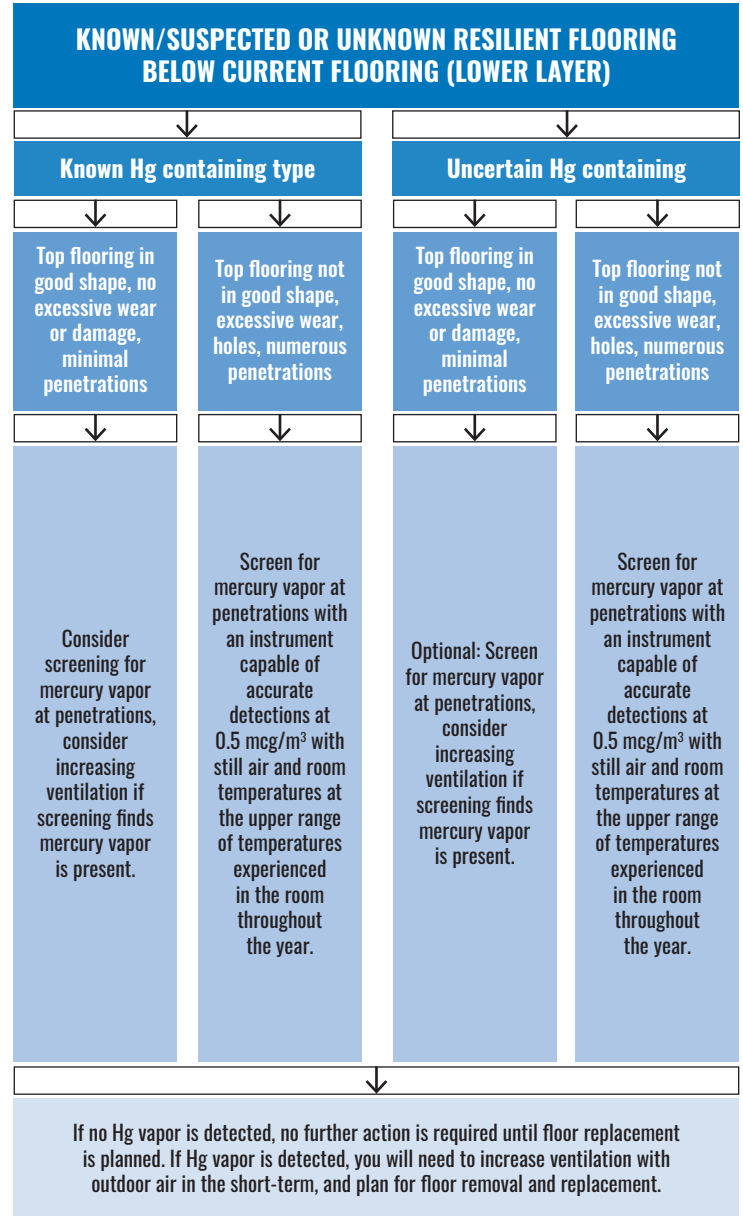
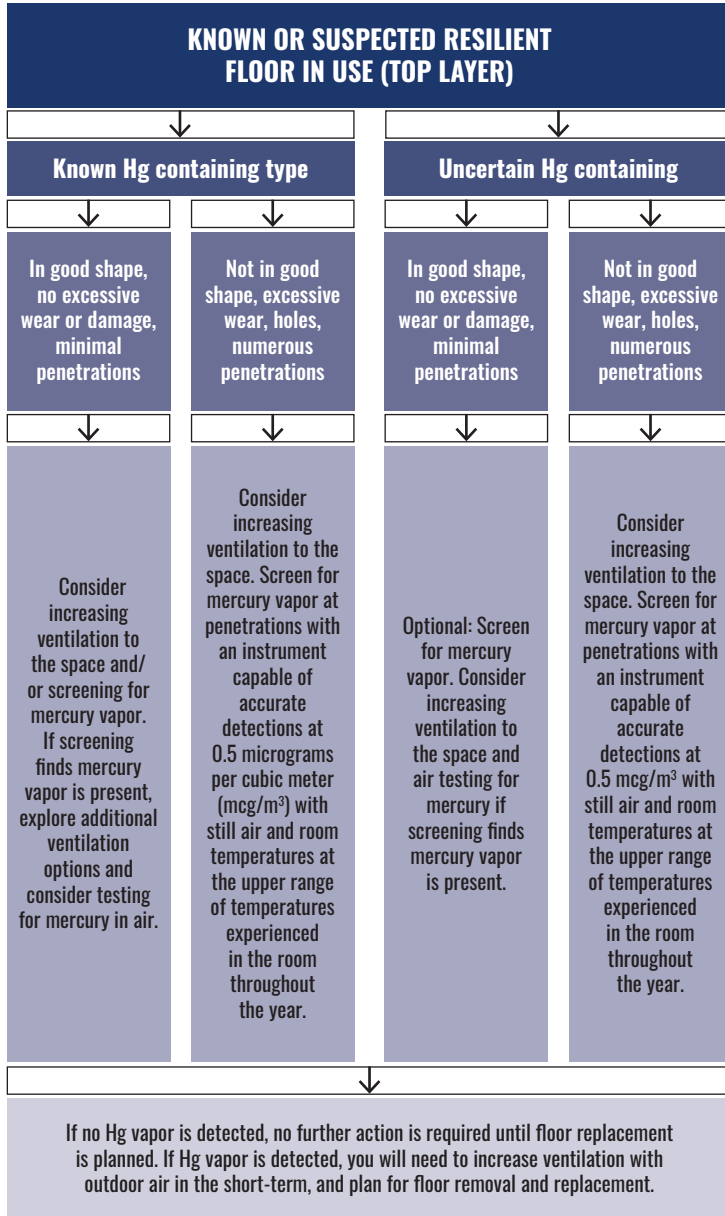
Katie Kidalowski
Product Stewardship and Waste Reduction
Section Supervisor
Bureau of Waste Reduction and Recycling
Division of Materials Management

Enclosure



Decision Tree for Potential Mercury-Containing Flooring in Schools

Please use the below guidance to determine the right approach for your school, and contact DOH (518 402 7800) or DEC (518 402 8706) for assistance, as appropriate.



Important Notes:

Schools considering covering of resilient flooring from an unknown manufacturer, or of unknown type, should consider ELAP-compliant bulk sampling for total mercury in solid waste/material content to avoid covering a mercury-containing floor.

Schools considering replacement of resilient flooring from an unknown manufacturer, or of unknown type, should consider necessary ELAP-compliant bulk sampling for leaching potential and hazardous waste determination as directed by NYSDEC.

Mercury-containing flooring cannot be covered over with a new floor, and may require disposal as hazardous waste. NYSDEC will require sampling of the flooring layers to determine how the flooring waste will need to be handled.

Concrete or cement may also contain mercury from fly ash and source minerals, but is not a source of mercury vapor. Care will need to be taken to minimize the chance of including cement from the slab in the flooring waste sample. This will preserve the slab and avoid biasing the mercury results.