

## Memo

Date: Wednesday, December 21, 2018  
To: Corinne Schiff, Department of Health & Mental Hygiene (DOHMH)  
From: Lauren Siciliano, Deputy Chief Operating Officer  
Re: NYC Department of Education (DOE) 2018-2020 Lead in Water Testing Protocol

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The New York State Regulation for Lead Testing in School Drinking Water (10 NYCRR Subpart 67-4) mandates that all school buildings test for lead at least every five years. The New York City Department of Education (DOE) consulted with the Department of Health and Mental Hygiene (DOHMH) on sampling schedule and has been formally approved by the New York State Department of Health (NYSDOH) to test a third of school buildings each calendar year, over the next three years beginning in 2018 and ending by December 31, 2020. Steps to be taken to meet the state regulations are outlined below.

### **Remediation for SY 2016-2017 Testing Cycle:**

In the 2017-18 school year, the Division of School Facilities (DSF) remediated all outlets that tested above the action level of 15ppb for lead in the 2016-17 testing cycle. Additionally, fixtures that were out of order or inaccessible during this cycle were repaired, tested and—if needed--remediated during 2017-18 remediation. Fixtures that still have elevations will continue to be remediated or permanently taken offline prior to that building being scheduled for the 2018-2020 testing cycle.

### **Labeling:**

Every applicable outlet, in all DOE school buildings, will be uniquely tagged with metallic barcoded adhesive labels and entered into a central lead database. This will ensure the data from previous testing rounds are properly cataloged into a central database moving forward and allow the DOE to have a record of all testing and repairs performed at the fixture-level. The metallic barcoded adhesive labels replaces the paper adhesive labels, and will be installed in unobtrusive areas around the outlet and remain in place going forward.

### **Selection of Buildings:**

Once a school building has been newly labeled, with remediation completed for the 2016-2017 testing cycle, it will be added to the queue of buildings that will be tested for the 2018-2020 testing cycle. A third of buildings will be tested before the end of the 2018 calendar year.

With the above criteria met, selection of DOE school buildings for the 2018 testing cycle is based on schools that house vulnerable populations (Early Childhood, Pre-K, Elementary) and those buildings that had a high number of exceedances (20% of entire building and/or at least 10 exceedances) during the initial round of testing.

## Testing Procedures:

### 1. Site Access Coordination

- a. No later than noon of every Thursday, Environmental Consultants (ECs) shall submit to Department of Education (DOE) office of Environmental Health & Safety (EHS) the schedule (Name/Bldg. ID#, Date & Time) of the schools to be tested for the following week.
- b. One day prior to the scheduled sampling date, the consultant will conduct a site visit to confirm readiness including accessibility to all locations with an outlet, adherence to the 8-18 hour stagnation and availability of school escort(s).  
EHS will provide to ECs the contact information (name & cell phone number) of the custodial staff who shall provide access and escort the ECs representatives during the collection of the water samples.

### 2. Sampling

- a. ECs shall meet with the designated custodial staff on site 1 hour before sampling start time to begin preparation.
- b. ECs representative(s) and designated custodial staff shall conduct a walk-through to ensure no outlets were left open or leaking in a continuous flow. If any of the said issues are found, sampling shall be canceled and rescheduled. Sampling shall proceed where faucets just drip.
- c. ECs shall confirm with the designated custodial staff that water throughout the school building has remained stagnant for a period of 8 to 18 hours before starting the sampling. Sampling shall not be done if stagnation is less than 8 hours or over 18 hours.
- d. Alteration to the water system such as removal of the faucet aerators or screens shall not be done prior to the water sampling.
- e. Samples shall not be collected from water outlets belonging to the "Out of Scope" category of outlets which includes:
  - i. Slop sink faucet in secured (lockable door) closet
  - ii. Slop sink faucet inside kitchen
  - iii. Faucets & ice makers in laboratory classrooms
  - iv. Hose bibs
  - v. Shower Heads & bath tub spouts
  - vi. Eyewash Stations
  - vii. Cuspidor – "Spittoon"
  - viii. Outlets in secured boiler room
  - ix. Hot water faucets
  - x. Hair washing sinks
- f. Samples shall only be collected from cold-water faucets, or tempered/mixed faucet if it is in scope and the only way to sample the faucet.

- g. Samples will be collected using the existing Mc55 scanners. The process will be as follows:
  - i. A building will be selected on the device
  - ii. An outlet will be selected either by scanning the new labelling format, or with prior protocol labels. The scanning application will accept either format, or allow manual entry of an outlet.
  - iii. After selecting an outlet as described above, the operator will scan the barcode pre-printed on the sample bottle.
  - iv. The sample ID is recorded along with operator, device ID, building ID, catalog ID, and date/time.
  - v. Upon docking the device, the data is uploaded to the database, and suitable reports can be generated for transmission to the lab.
  - vi. The operator may sign directly on the device to certify chain of custody.
  - vii. New, out of scope, previously inaccessible or decommissioned outlets may be entered during the process.
- h. Samples shall be collected in pre-cleaned, pre-acidified, 250ml plastic bottles provided to ECs by DOE EHS.
- i. Sample collection shall begin at the outlet closest to the water line point of entry into the building.
- j. One sample shall be collected from each water outlet. A first draw shall be collected upon first opening the outlet (1<sup>st</sup> draw sample)
- k. The rate of flow should be the same as used to fill a glass.
- l. Any outlet conditions that may affect the sample, such as dripping outlet, discolored water, low water pressure, shall be noted on the chain of custody forms.
- m. Sample shall be collected even if water is discolored or rate of flow is low.

**Laboratory Analysis and Reporting Laboratory Results:**

1. ECs shall ship/deliver water samples to NYSDOH ELAP certified laboratories to be analyzed for lead content.
2. ECs shall request a 7-10 days turnaround time for analysis.
3. All samples shall be analyzed for Lead content by EPA analytical methods 200.8 or 200.9
4. Upon completion of analysis laboratory shall report the results to ECs by:
  - a) Laboratory analysis report
  - b) Data report as excel spreadsheet
5. ECs Reporting to DSF/EHS
  - a) Laboratory summary results as an email report with the laboratory analysis report and the excel spreadsheet data report as attachments to the email.

**Remediation for 2018-2020 Testing Cycles:**

For any fixtures that have sample results above the Action Level, the following protocols are put in place:

- Water Fountain Bubbler: Fixture must be immediately isolated and yellow tagged.

- Bottle Filling Station: Fixture must be immediately isolated and yellow tagged.
- Food Preparation Sink: Fixture must be immediately isolated and yellow tagged.
- Cold-Water Faucet (Nurses Office): Fixture must be immediately isolated and yellow tagged.
- LYFE Center Cold-Water Faucet: Fixture must be immediately isolated and yellow tagged.
- Classroom Cold Water /Restroom Faucet: Fixture can remain in use with “hand washing only” sign posted until results come back below the action level of 15PPB.
- Weekly flushing of building’s water system on Monday’s and after holiday breaks. Weekly flushing protocol includes: all outlets, all out-of-scope outlets and any yellow tagged outlets or as detailed in an “Enhanced Water Safety Plan” (see below).

**Post-remediation protocol:**

- Any isolated fixture must remain isolated and yellow tagged until a post-remediation sample result demonstrates the lead concentration is below the Action Level.
- Post-remediation sampling shall collect a two sample bottles, A 30-second flush sample in addition to the standard 1<sup>st</sup> Draw sample.

**Updated for Remediation Protocol:**

- For any fixture that is elevated, and has not been previously replaced in the last five (5) years, the fixture is replaced, including all the immediate piping to the wall.
- For any fixture that is under 5 years old, was previously replaced and shows an elevation, a replacement is not necessary. In this circumstance, steps taken include (while remaining isolated, yellow tagged or signed as appropriate):
  - Targeted fixture maintenance, such as changing/cleaning of aerators/screens, examination of associated plumbing for in-line strainers (to be cleaned) valve positions, etc.
  - After these steps are taken, if the fixture remains elevated and there are multiple fixtures in the building with this status, the school will be a candidate to develop and implement an Enhanced Water Safety Plan. This includes a detailed assessment of the plumbing profile, sample result analysis and specialized flushing protocol.
- For a fixture(s) that show an exceedance after three consecutive tests, the option of decommissioning (i.e. removing) the fixture is considered and evaluated. This step is only taken with fixtures that do not affect the availability of potable water or the operations of the building.