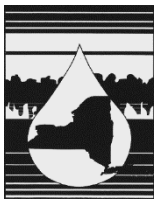
REPORT TO THE GOVERNOR, TEMPORARY PRESIDENT OF THE SENATE AND SPEAKER OF THE ASSEMBLY

LEAD IN SCHOOL DRINKING WATER STATUS REPORT

Report Completed by New York State Department of Health with cooperation by New York State Education Department



January 27, 2017

Lead pipes, or solder used on non-lead pipes, were common in construction until their use was banned in 1986. Since then, the federal government required that only "lead-free" materials be used in new plumbing and plumbing fixtures. The federal law, however, still allowed certain fixtures with up to eight percent lead to be labeled as "lead-free." In 2011, amendments to the Safe Drinking Water Act re-defined "lead-free" to mean no more than a weighted average of 0.25 percent lead. Although schools are in the preliminary stages of source evaluation, it has been noted that some of the most common sources of lead in school drinking water are water fixtures, drinking fountains, bubblers or lead solder used to connect pipes and fixtures.

On September 6, 2016, Governor Andrew M. Cuomo signed into law Chapter 296 of the Laws of 2016[1] requiring all public school districts and boards of cooperative educational services (BOCES) in New York State to test drinking water for lead contamination, and if over the actionable threshold to take remedial actions.

There are nearly 4,700 public schools in New York State, spread throughout nearly 700 school districts. Of these 4,700 schools, just over 1,720 are in New York City (NYC) with approximately 2,940 located throughout the rest of the State. Under the law, every public school in the State had to test every water fixture or outlet used for drinking or cooking by students in pre-kindergarten through grade 5 by September 30, 2016 and grades 6-12 by October 31, 2016. After this initial testing, schools must test every outlet every five years or at an earlier time as determined by the Commissioner of Health.

Water samples collected from outlets by the schools are sent to a laboratory that is certified by the New York State Department of Health's (Department) Environmental Laboratory Approval Program (ELAP) for independent testing.

The law requires that for any water outlet in exceedance of the U.S. Environmental Protection Agency's (EPA) lead action level, established for public water systems, of 15 parts per billion (ppb), the school must immediately take action to eliminate the potential exposure to lead[2]. Any outlet that exceeds EPA's lead action level must be immediately taken out of service until a remediation plan is implemented to mitigate the lead levels at that outlet. In addition, building occupants must be provided with an adequate supply of potable water for drinking and cooking until remediation is performed and testing shows lead levels are at or below the action level. The Local Health Department (LHD), parents,

[1]To implement this new law, the New York State Department of Health (Department) in consultation with the New York State Education Department (SED), issued emergency regulations, titled Lead Testing in School Drinking Water - 10 NYCRR Subpart 67-4, (Subpart 67-4) effective September 6, 2016. Subpart 67-4 applies to all schools, including those already classified as a public water system under 10 NYCRR Subpart 5-1

[2]To put the standard into context, 15 parts per billion means that out of one billion drops of water, 15 drops have some lead. Lead is a metal that can harm children and adults when it gets into their bodies. Lead is a known neurotoxin, particularly harmful to the developing brain and nervous system of children under 6 years old. Lead can harm a young child's growth, behavior, and ability to learn. Lead exposure during pregnancy may contribute to low birth weight, preterm delivery and developmental delays in infants.

and students must be notified of the exceedance. The outlet cannot be used as a source of drinking water until tests confirm that the level of lead in water coming from that outlet is below the lead action level.

In certain limited circumstances, the Department may issue temporary waivers to districts unable to comply with the law. Ultimately, every school district must comply.

As established in DOH regulations, several remedial courses of action are taken when test results show an outlet within a school is above the EPA action level. All outlets with results above the action level have been taken off line. Short and long-term remediation measures are dependent on several factors which could include frequency and type of use, plumbing configurations, and hydraulics. Remediation options vary by cost and appropriateness to the outlet. Some short-term solutions available to schools are shutting off problem outlets and flushing. Flushing is effective because standing water is most likely to pick up metal deposits from sitting in the pipes. Longer-term solutions are replacement of faucets and drinking fountains, filtration, replacement of lead pipes and providing an alternative source of water, among other options. The State is paying for a significant portion of districts' remediation efforts.

Finally, pursuant to Section 3602 (6-h) of the Education Law, the State will reimburse school districts for a significant portion of testing and remediation costs associated with compliance under this law.

Results to Date

Of the 2,940 schools outside of New York City (NYC), 2,817, or ninety-six percent, have tested every outlet, and to date 2,596 (or eighty-eight percent of schools outside of New York City) have provided the Department results. For the 2,817 schools that have conducted testing thus far, there were over 256,139 individual outlets tested. Of 236,600 outlets for which data has been reported, eighty-six percent of the outlets were under the EPA lead action level. Additional results are still pending for 19,539 outlets that have been tested, as districts are awaiting the lab certified results.

By January 25, 2017, the New York City Department of Education (NYC DoE) had submitted results from 541 buildings for the approximately 1,720 schools in New York City. Of 46,654 total outlets tested, 42,261 (or ninety one percent) were under the EPA lead action level. NYC DoE will not have complete results until mid-2017.[3]

On November 17, 2016 a memo was sent to all superintendents notifying them that the compliance date had passed and immediate action was required if sampling and reporting had not been made. Technical guidance is being provided to bring these remaining schools into compliance. All school results must be made available on school districts' websites.

[3] The NYC Department of Education (DoE) conducted sampling in April 2016 prior to the enactment of both the statute and regulation. However, the sampling protocols used were not in compliance with Subpart 67-4 because the water lines were flushed (i.e. pre-stagnation flushing) in many instances before a sample was collected, which can result in false-negative results. Additionally, not all outlets were previously tested as required by the statute. NYC DoE has indicated that it is resampling all outlets in compliance with Subpart 67-4.

Next Steps

The Department has made the lead in school data publically available through the Health Data New York (HDNY) platform found at health.data.ny.gov, that data will continue to be updated. HDNY is an interactive tool where parents, media, and the public will be able to access information on school drinking water testing for all applicable schools across the state, currently excluding New York City. The various visualization tools within this online application will allow the public to obtain information about lead testing in individual schools.

In the coming months, the Department will continue to focus its attention on activities to increase school compliance including enforcement, if necessary. In addition, the Department and local health departments will collaborate on the following:

- The LHD will contact the school to request a meeting or conference call to determine why the school is not in compliance; and
- The LHD and the school will agree on steps for the school to achieve compliance within an expedited timeline.

If a school does not demonstrate a willingness to comply, or fails to comply with the established timeline, a hearing will be scheduled that could result in fines and an order to complete the required testing.

Part A: Regulation Requirements

Subpart 67-4 requires schools to perform monitoring, response, public notification, reporting and recordkeeping. Below is a brief summary of the regulatory requirements outlined in Subpart 67-4.

Compliance Dates

The following table summarizes important compliance dates for the Lead Testing in School Drinking Water Regulation.

Table 1: Compliance Dates as Specified in Subpart 67-4	
September 6, 2016	Effective date of the Lead Testing in School Drinking Water regulation.
September 30, 2016	Schools must complete sampling in pre-Kindergarten through grade 5 buildings.
October 18, 2016	Schools conducting testing and remediation efforts prior to Sept. 6, 2016 must post results and remediation plans and efforts on their school websites.
October 31, 2016	Schools must complete sampling in grade 6 through grade 12 buildings.
October 31, 2016	Schools must post on their websites the list of buildings whose plumbing materials are deemed "lead-free."
November 11, 2016	Schools must enter the completion (or status) of initial sampling in the Health Electronic Response Data System (HERDS), and list buildings in which plumbing materials are deemed "lead-free."
November 17, 2016	Memo sent to all superintendents notifying them that the compliance date had passed and immediate action was required if sampling and reporting had not been made.
Within 10 business days of receiving laboratory results	Schools must, as results become available, enter and update the information relating to recently received laboratory results into HERDS in the Health Commerce System (HCS).
2020	The next round of sampling begins, or at an earlier time, as determined by the Commissioner of Health.

Part B: Monitoring Requirements

Samples must be collected in accordance with the schedule above, following the requirements in Table 2. All samples must be analyzed by a laboratory that is certified by the Department's Environmental Laboratory Approval Program (ELAP).

Table 2. Sampling Requirements and Action Level	
Sample type	First draw samples
Action Level	15 ppb (consistent with the U.S. EPA's Lead & Copper Rule)
Sample volume	250 mL
Bottle Type	Wide mouth, plastic bottle recommended.
Sample collection	Avoid collecting samples in the mornings after vacations, weekends, or holidays unless specifically directed to do so
Water stagnation time in pipes	8 to 18 hours

Part C: Response

Subpart 67-4 requires that schools immediately respond when there has been an action level exceedance (>15 ppb). Table 3 outlines the required response schools must take when there is an action level exceedance.

Table 3. Response to Action Level Exceedance	
If the lead concentration of water at an outlet exceeds the action level, the school must:	1. Prohibit use of the outlet (take out of service or turn off) until a lead remediation plan is implemented to mitigate the lead level of such outlet, and test results indicate that the lead levels are at or below the action level.
	2. Provide building occupants with an adequate supply of potable water for drinking and cooking until remediation is performed and testing shows lead levels at or below the action level.
	3. Report test results to the local health department (LHD) as soon as possible (ASAP), but no more than one business day after receipt of lab report.
	4. Notify all staff and parents/guardians of the test results in writing ASAP, but not more than 10 business days after receipt of lab report.

Part D: School Reporting and Record Keeping Requirements

Schools are required to report data relating to their lead testing to the Department through HERDS in HCS, to their LHD, and to their school community, as prescribed in the table below.

Table 4. Notification and Reporting Requirements for School Districts

Reporting Requirements	Where/To Whom	When
Information on test results and remediation efforts conducted prior to September 6, 2016	School Community*	By September 20, 2016
Information on test results and remediation efforts conducted prior to September 6, 2016	School Website	By October 18, 2016
Reporting data related to lead sampling and buildings with lead free plumbing	To the Department via HCS/HERDS	By November 11, 2016
Posting lead test results	School Website	As soon as practicable, but within 6 weeks of receipt of lab report
Reporting data related to lead test results	To the Department via HCS/HERDS	As soon as practicable, but within 10 business days of receipt of lab report
Notification of a lead action level exceedance	LHD (phone and/or email)	Within 1 business day of receipt of lab report
Notification of a lead action level exceedance	School Community*	Within 10 business days of receipt of lab report (Notification must be made in writing)
**School Community means all teachers, staff and parents/guardians of the student body.*		

The following table summarizes the record-keeping requirements for schools, as outlined in Subpart 67-4.

Table 5. Record-keeping Requirements

Schools must retain all records for 10 years following document creation. Copies of documents must be provided to the Department/Local Health Department, or State Education Department upon request. Records may include, but are not limited to:	Test Results
	Lead remediation plans
	Determinations of buildings with lead free plumbing
	Waiver requests/approvals

Part E: Waivers

Subpart 67-4 requires schools to test all potable water outlets for lead contamination. Some schools may have performed sampling prior to September 6, 2016 that substantially, but not completely, complies with Subpart 67-4. Consistent with statutory requirements, the Department may issue waivers for schools that performed testing prior to September 6, 2016 in a manner that substantially complies with Subpart 67-4. Schools must work through their LHD to apply for a waiver. The Department is responsible for approving or disapproving waiver requests.

Part F: Program Implementation

Guidance and Resources

The Department has created numerous reference and guidance documents, as well as hosted numerous webinars and other outreach activities to assist schools with implementation of this regulation. The Department created a website dedicated to the Lead Testing in School Drinking Water Regulation which serves as a central repository for implementation tools and guidance for schools and LHDs. New information is posted to the website as it is developed. The website includes the following guidance and resources:

Memos to Schools

- August 29, 2016: Pre-regulation Guidance Memo
- September 15, 2016: Post-regulation Guidance Memo

Information for Schools

- New York State Regulation for Lead Testing in School Drinking Water
- Frequently Asked Questions
- Waiver Protocol
- Sampling Instructions
- Video: "Sampling for Lead in Drinking Water in NYS Schools"
- Certified Laboratories for Conducting Lead Testing in School Drinking Water
- Public Notification Letter Template
- Example Outlet Signage
- Health Commerce System (HCS)/HERDS Access Information
- EPA Guidance: 3Ts for Reducing Lead in Drinking Water in Schools

Webinar Presentations for Schools

- DOH/SED Webinar with an Overview of the Regulation (9/16/16)
- Environmental Protection Agency (EPA) Presentation on 3Ts and NYS Regulation (9/23/2016)
- NYS Department of Health Presentation on Regulatory Implementation (9/23/2016)
- DOH/SED Webinar on HERDS/HCS (10/4/16)
- Reporting Lead Testing in School Drinking Water on HERDS/HCS (11/7/2016)

In addition to the information provided on the website, the Department conducted an extensive education and outreach campaign to ensure schools and LHDs received adequate training and guidance to successfully implement and comply with the regulation. Education and outreach activities can be found in Part J.

Part G: Roles and Responsibilities

The following table outlines the roles and responsibilities of the stakeholders responsible for implementation, compliance, and enforcement of Subpart 67-4.

Table 6. Roles and Responsibilities	
Schools	Implement the requirements of the Lead Testing in School Drinking Water regulation as specified under Subpart 67-4. This includes: identifying, testing, and remediating all outlets (where applicable); reporting results to the school community on the school's website; and reporting data into the Statewide Electronic Reporting System, per the requirements of Subpart 67-4.
Local Health Departments	Assist schools with implementation of Subpart 67-4 by answering implementation and compliance questions, reviewing and evaluating waiver requests, making recommendations regarding waivers to the Department, conducting data quality checks and compliance reports and following -up with schools as appropriate, and assisting with enforcement actions, when needed.
Department of Health	Develop tools and resources for implementation of the regulation, assist schools and LHDs by answering implementation and compliance questions, review and approve or disapprove waiver requests.
Education Department	Review and approve applications for State aid for expenses related to testing and remediation pursuant to Section 3602 (6-h) of the Education Law and for testing only pursuant to Section 1950 (5)(b) of the Education Law.

Part H: Reporting System

The Department collaborated with the New York State Office of Information Technology Services to develop a statewide electronic reporting system for schools to satisfy the reporting requirements established in Subpart 67-4. This system, which builds on an existing reporting system known as Health Electronic Reporting Data System (HERDS), is found on the Department's electronically secure Health Commerce System (HCS).

To report in HERDS, the school district or BOCES HCS Coordinator must assign a **School Lead in Drinking Water Reporter (Reporter)** role for each school. This was a new role created specifically to allow schools to report into HERDS. The Department conducted extensive outreach activities to School HCS Coordinators and Reporters with the instructions on how to add this role and use the electronic reporting system.

Statistical analyses were performed on data extracted from HERDS and the NYS HCS Communications Directory.

Part I: State Aid for Testing and Remediation Costs

The state will help pay for school districts' testing and remediation costs pursuant to Section 3602 (6-h) of the Education Law (and for BOCES testing costs only, pursuant to Section 1950 (5)(b) of the Education Law). New York State is the first state in the nation to do so. School districts will submit their claims for State Aid to the State Education Department, and will receive payment as part of General Aid pursuant to Section 3609-a of the Education Law. To determine aid amounts, an aid ratio is applied to approved expenses such that school districts with less local fiscal capacity to support the expenses receive proportionately more State Aid.

Testing

The costs associated with testing in all occupied buildings owned or leased by a school district or BOCES are eligible for aid. The costs associated with testing of water taps located on the site of a school district or BOCES building, such as water taps in a concession building, or an exterior drinking fountain, are also considered approved expense for aid.

Remediation

The installation of filters and/or other effective remedial measures for immediate remediation is aidable in cases where a finding of lead contamination is initially made and verified by confirmatory sampling, and reviewed by a water quality professional. The cost of filters and other effective remedial measures must be incurred prior to July 1st, 2019. Remedial measures that are aidable expenses must be permanently installed devices, as opposed to costs of short term remediation strategies.

Aidable effective measures of remediation include activities such as: the installation of filters, changing out water taps, including faucets, drinking fountains and bubblers, or the replacement or reconfiguration of piping in the vicinity of the water outlets in those situations where the lead contamination is a result of piping materials in the vicinity of the outlets, and not in (or not just in) the outlets themselves.

Short and long term remediation measures are dependent on several factors which could include use, plumbing configurations, and hydraulics. Therefore, it is important that schools consult with a professional versed in remediation of lead in school drinking water to determine the appropriate short and long term remediation measures for the specific school and outlet. The Environmental Protection Agency's 3Ts program provides recommendations for routine, short and long remediation or "control" measures which can be found at https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf. Examples of recommended short and long term measures may include:

Short-Term Remediation Measures

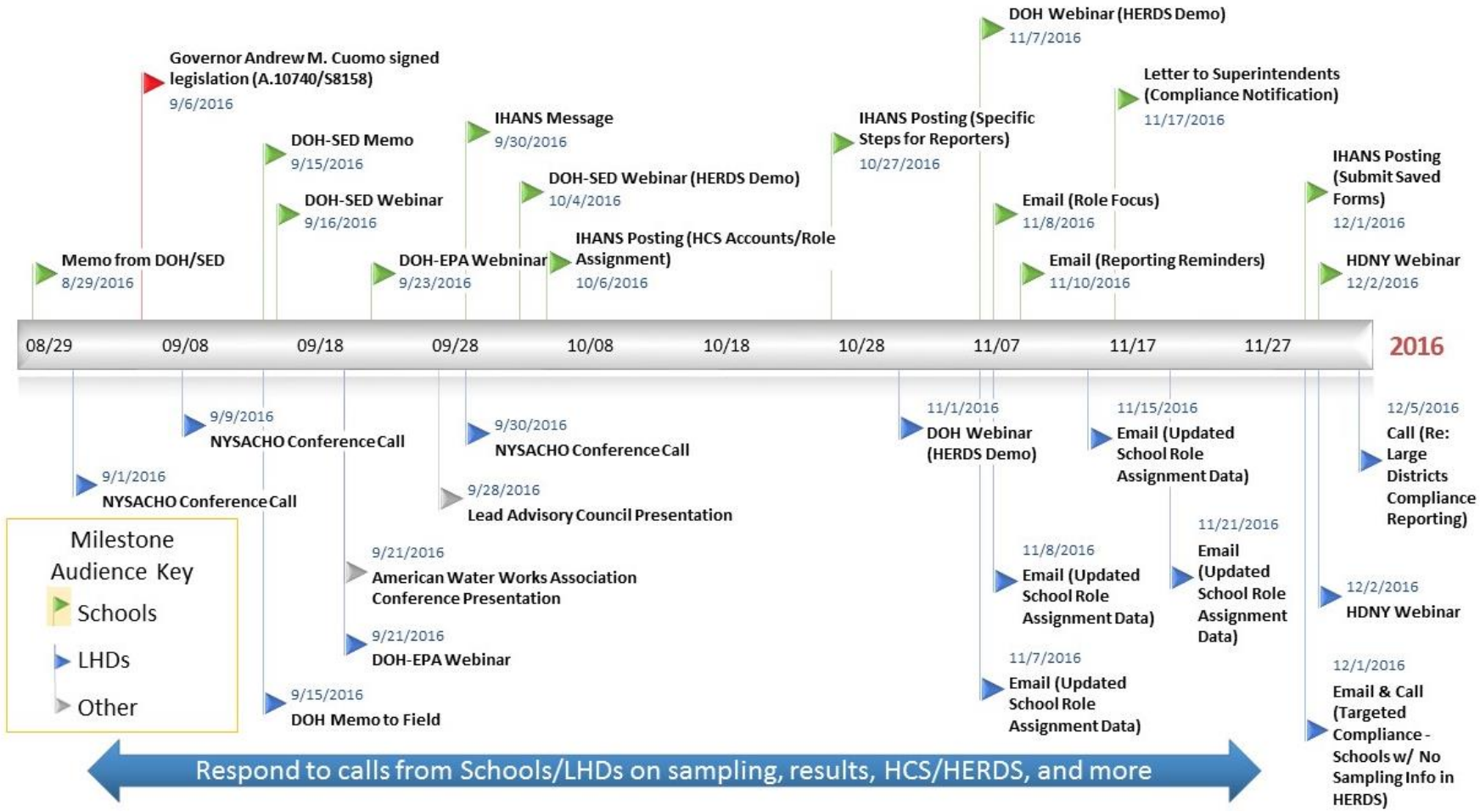
- Shut off problem outlets: This is required, as per Subpart 67-4, for all action level exceedances,
- Provide an adequate supply of potable water until remediation is performed; If applicable, this may be required, as per Subpart 67-4, for action level exceedances, and
- Flushing.

Long-Term Remediation Measures

- Outlet or fixture (faucets, drinking fountains, bubblers, etc.) replacement,
- Point of use treatment (I.e. filters),
- Checking grounding wires,
- Lead pipe replacement,
- Plumbing reconfiguration,
- Use of lead-free plumbing materials,
- Permanently shut off problem outlets,
- Provide an adequate supply of potable water until remediation is performed: If applicable, this may be required, as per Subpart 67-4, for action level exceedances, and
- Automatic flushing systems.

The cost of remedial measures that would be eligible for regular Building Aid pursuant to Section 3602 (6) of the Education Law, are not eligible for State Aid under Section 3602 (6-h) of the Education Law. These would most likely be larger scale, long-term remediation projects that would qualify as capital construction projects, for which districts would apply for project approval through the State Education Department.

Part J: Timeline and Outreach Activities



Note: During period of 10/8/2016 to 10/24/2016, the Department was developing guidance documents for schools and LHDs