



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

## Health and Safety Report

<b>District</b>	<b>Location</b>	<b>Project #</b>
Monticello Central School District	Rutherford Elementary School	2324-21
<b>Site Visit Date(s)</b>	<b>Investigation type</b>	<b>Investigator(s)</b>
9/28/23	Lead in Drinking Water	Gary Bowers II

## Table of Contents

<b>Project summary</b>	<b>2-3</b>
<b>Results</b>	<b>4</b>
<b>Recommendations</b>	<b>4-5</b>
<b>Corrective Actions/Remediation</b>	<b>5-6</b>
<b>Reporting/ Record Keeping</b>	<b>6-7</b>
<b>References</b>	<b>7</b>
<b>Appendix A</b>	<b>Chain of Custody</b>



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

## **Project summary**

At the request of the Monticello Central School District, on Thursday, September 28<sup>th</sup>, 2023, Sullivan County BOCES Assistant Health & Safety Coordinator, Gary Bowers II, collected samples for lead in drinking water at the MCSD's Rutherford Elementary School in Monticello, NY, in accordance with the emergency regulation titled: *Lead Testing in School Drinking Water* 10 NYCRR Subpart 67-4, effective 5/9/2018. Public Health Law 1110 requires changes to Subpart 67-4, effective 12/22/22.

These regulations requires school districts and boards of cooperative education services (BOCES) with municipal water supplies, and those classified as *public water systems under* 10 NYCRR Subpart 5-1, to test potable water outlets for the presence of lead contamination. This regulation is largely consistent with the Environmental Protections Agency's (EPA's) existing guidelines titled: *3Ts for Reducing Lead in Drinking Water in Schools* however there are some important differences. The EPA's guidance document recommends a 1<sup>st</sup> and 2<sup>nd</sup> draw testing process, while the NYS regulation requires only 1<sup>st</sup> draw sample collection. The acceptable limit for lead in water is 5 ppb (parts per billion).

Additionally, the EPA guideline states that *"if possible, every outlet used for drinking or cooking should be sampled"* (Agency, 2006). The NYS DOH Lead Testing in School Drinking Water Program Guidance Manual dated 2/2021 reads "Samples must be collected at all outlets used or potentially used for drinking or cooking (ie., outlets located in the school's kitchen, classrooms, gymnasium, teachers lounge, nurse's office, etc). Outlets may be located anywhere in or around the school building, including external outlets (hose bibs) if the outlet may be used for drinking. Any outlets excluded from sampling should be documented in the Remedial Action Plan." (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21). Other examples of applicable outlets include food washing sinks, ice machines, combination bottle fill station and drinking fountains, hand washing outlets, foot level operated multi-outlet gang sink, traditional outlets with hot and cold water handles. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)

Superintendents or their designees have the responsibility to identify which outlets on a school property meet the regulation requirements for sampling (applicable outlets). If a Superintendent or their designee determines that they have outlets that fall outside of the scope of the regulation (outlets not used or potentially used for drinking or cooking), the school must have a Remedial Action Plan that includes details on how those outlets will NOT be accessed and/or utilized for drinking or cooking purposes (non-applicable outlets). (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)

Examples of possible "Non-applicable Outlets" include tempered water outlets, bathroom sinks, dishwashing sinks, custodial closets, bus garage outlets, point of entry from distribution system and Science/Art sinks. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

The NYS DOH and the US EPA recommend that hot or tempered water NOT be used for drinking or cooking as warm or hot water increase the leaching of lead into the water. Therefore, tempered outlets do not require sampling. However, all tempered water outlets should be clearly posted with signs (“Do Not Drink” or equivalent), education should be provided to the students and staff to ensure awareness, and the remedial action plan should address, document and describe continued management of the controls in place for these outlets. *(NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)*

Anyone who is familiar with *Lead Testing in School Drinking Water* 10 NYCRR Subpart 67-4, and “First Draw” sampling protocols may collect the water samples. This includes, but is not limited to a school staff member, a laboratory representative, or a consultant. The individual collecting the samples must be able to maintain quality assurance and control over the sampling, and must ensure the chain of custody of the water samples is maintained. Ultimately, it is the school Superintendent or designee that is responsible for ensuring that the samples are collected in accordance with Subpart 67-4. *(NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)*

Any sample submitted for compliance under Subpart 67-4 must be a “First Draw” sample. First draw samples are water samples collected from a cold water outlet before any water is used from that outlet. The water must be motionless in the pipes for a minimum of 8 hours and a maximum of 18 hours before sample collection. This is intended to simulate water that would be consumed during normal operating conditions on any school day. *(NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)* The NYS DOH does not allow for pre-stagnation flushing prior to sampling unless a school is directed to do so by the DOH or local health department. Aerators should be removed prior to sampling. The required sample volume is 250mL. *(NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)*

On Thursday, September 28<sup>th</sup>, 2023, samples were collected from the Rutherford Elementary School. The total number of samples collected and submitted at that time was 12. In order to ensure samples are representative of the water that building occupants would typically consume, the district is to have made arrangement for water to be motionless in the building’s plumbing system for a period of time no less than 8 hours or more than 18 hours. Samples were collected in wide mouth 250 ml containers provided by Pace Analytical Services, and all samples were delivered to the lab on the date of collection. Pace Analytical Services is NYS-DOH Lab # 10142, and is approved for potable and non-potable water analysis.



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

**Results**

Subpart 67-4 requires a response for any plumbing outlet that exceeds the *action level* of 5 micrograms per liter (mcg/L) or 5 part per billion (ppb). Lab results indicated that **0** fixtures exceeded the reporting limit of greater than 5ppb.

**Rutherford Elementary School**

Sample #	Date	Time	AREA	250 ml HNO3	Analysis Requested	Results
01	9/28/23	0602	Kitchen- hand wash sink	250 ml HNO3	Lead	2.5 ppb
02	9/28/23	0605	Kitchen Pot Wash Left	250 ml HNO3	Lead	2.6 ppb
03	9/28/23	0606	Kitchen Pot Wash Right	250 ml HNO3	Lead	ND
04	9/28/23	0607	Kitchen Island Sink	250 ml HNO3	Lead	ND
38	9/28/23	0620	200 Wing Bottle Fill	250 ml HNO3	Lead	ND
72	9/28/23	0618	Hall @ Main Office Bottle Fill	250 ml HNO3	Lead	ND
73	9/28/23	0610	Nurse's Sink	250 ml HNO3	Lead	1.0 ppb
74	9/28/23	0612	Nurse's Bath Sink	250 ml HNO3	Lead	ND
76	9/28/23	0619	Hall @ Main Office Bubbler	250 ml HNO3	Lead	ND
77	9/28/23	0615	Cafeteria Bottle Fill	250 ml HNO3	Lead	ND
78	9/28/23	0616	Cafeteria Bubbler	250 ml HNO3	Lead	ND
79	9/28/23	0621	200 Wing Bottle Fill	250 ml HNO3	Lead	ND

This was reported to the district as soon as the lab results became available. See attached documents from Pace Analytical Services (Project #: Rutherford Elementary) for the full lab results.

**Recommendations**

Following an Action Level Exceedance, steps to take include the following:

**Immediate Response:**

1. Prohibit the use of the outlet (take outlet out of service or turn off) until:
  - A) A Remedial Action Plan is implemented to mitigate the lead level at the outlet, and
  - B) Post-remediation test results indicate that the lead levels are at or below the action level;



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

2. Provide building occupants with an adequate supply of water for drinking and cooking until remediation is performed; this water is to be provided free of charge. (NYS DOH, Lead Testing in School Drinking Water, 10 NYCRR Subpart 67-4, Program Updates, March 2023)
3. Report the test results to the local health department as soon as practicable, but no more than 1 business day after the school received the laboratory report;
4. Notify all staff and all persons in parental relation to students of the test results, in writing, as soon as practicable but no more than 10 business days after the school received the laboratory report;
5. Refer to the **Reporting Requirements of All Test Results** section for additional reporting details and more information concerning reporting deadlines.

(NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)

### **Corrective Actions / Remediation**

Schools should consider the following remedial options for addressing outlets that exceed the action level:

- **Permanent outlet removal** – If the outlet is seldom used, it may be disconnected or removed from the water supply line. Prior to removing an outlet, verify that the outlet is not required for compliance with local building code or NYS Education Department requirements for access to potable water within the building. To ensure that an outlet is permanently taken out of service, the NYS DOH recommends removing the outlet and capping the supply line with plumbing materials that are lead free. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- **Outlet and/or pipe replacement** – with lead free plumbing materials. If the existing outlet and or plumbing is suspected to be the source of the contamination, replace it with a new product that meets the Safe Drinking Water Act Section 1417(a)(4) definition of lead free (effective 1/4/14). (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- **Flushing** – Schools may consider developing a systematic flushing program to implement routinely (at a specified frequency). Flushing is generally used as a short-term measure and paired with permanent remediation like replacement or removal of an outlet. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- **Point of Use Filters** – POU filters are filters installed at individual outlets. They are commercially available and can be effective in removing lead. Schools may choose to use certified lead reducing filters as a long term or permanent control measure with proper maintenance. To select a lead reducing POU filter, check with the manufacturer



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

or a third party website to verify the product was tested and certified against NSF/ANSI Standard 53 (for lead removal). For additional protection for particulate lead, look for a POU filter that is also certified against NSF/ANSI Standard 42 (for class I particulate reduction, 0.5microns to <1 micron). Filters require routine maintenance to remain effective. Be sure to follow the filter manufacturer's instructions for maintenance and replacement. If POU filters are being considered, be sure to factor in the cost of the filters and long term maintenance and replacement costs. Also, be sure that the filtering media does not consist of nut products. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)

- ***“Do Not Drink” Signage*** – In general, posting “Do Not Drink” or equivalent signs at outlets are considered a temporary measure. However, some outlets, for example, science laboratories outlets, may have signs posted long term if the school has also instituted other controls including supervision and education to ensure the outlets are not used for consumption. Schools may develop their own signs and consideration should be given to the age of the children, as pictures may be more appropriate for younger children. Signs must be clearly visible and in close proximity to the affected outlets. Placing a sign at a room entrance is not acceptable. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- ***Supervision of outlet use as a control measure*** – In areas where supervision is present and there are policies to prevent the use of water for consumption purposes, supervision may be used as a remedial action. Supervision should be used in combination with other controls. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- ***Engineering Controls*** – Engineering controls may be implemented to prevent consumption of water from specific outlets. Engineering controls include locked doors to janitor's closets, special keys to operate an outside hose bib, and other controls. Engineering controls should be combined with continued education reminding staff and students not to consume water from these outlets and with signs as needed. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)
- ***Education*** – Educate the school community to reinforce understanding and compliance with engineering controls, supervision controls and signage. (NYS DOH Lead Testing in School Drinking Water Guidance Manual 2/21)

All remedial measures employed should be described in the Remedial Action Plan.

#### **Reporting/ Record Keeping requirements of the NYS Dept. of Health**

- Within 1 business day of receipt of laboratory reports:
  1. Report any and all lead results greater than 5 ppb to the local health department.
- Within 10 business days of receipt of laboratory reports:



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

2. Report any and all lead results greater than 5 ppb to all staff, parents and guardians in writing. Physical written notification should be distributed to all staff and persons in parental relation to the child. Posting the information on the school website or through social media does not constitute written notification
3. Report current test results (including post-remediation results) in the NYS DOH's electronic reporting system, HERDS.
- Within 6 weeks of receipt of laboratory reports:
  4. Post the original, complete laboratory reports detailing results on the school's website. This should be readily visible and remain posted on the schools website for the duration of the compliance period. (Lead Testing in School Drinking Water, 10 NYCRR Subpart 67-4, Program Updates, March 2023)
- Record Retention: 10 years
  5. Schools must retain on site all records of lead test results; remediation actions, "lead-free" plumbing determinations and waiver requests and approvals for 10 years following document creation. (Health, September 23, 2016)

#### References:

Agency, U. E. (2006). *3T,s for Reducing Lead in Drinking Water in School*. Washington DC: United States Environmental Protection Agency.

Health, N. D. (September 23, 2016). *Lead Testing in School Drinking Water*. Albany, NY: NYS Dept of Health.

Official Compilation of Codes, R. a. (2016). *Lead Testing in School Drinking Water*. Albany, NY: Commissioner of Health.

NYS Law Subpart 67-4 Lead Testing in School Drinking Water, NYS Dept. of Health Regulations, Albany, NY: NYS Dept. of Health

NYS DOH Lead Testing in School Drinking Water 2020 Compliance Requirements November 2019 Webinar Presentation

NYS DOH, Lead Testing in School Drinking Water, 10 NYCRR Subpart 67-4, Program Updates, March 2023



15 Sullivan Ave., Suite 1W, Liberty, NY 12754

**Appendix A**

SWCSD High School

Lead in School Drinking Water

Sample #	Date	Time	AREA	250 ml	Analysis Requested
WF8-1	8/8/23	0705	Hallway by Main Office Left	250 ml	Lead
WF8-2	8/8/23		Hallway by Main Office Right	250 ml	Lead
WF9-1	8/8/23		Hallway by Room 133 Left	250 ml	Lead
WF9-2	8/8/23		Hallway by Room 133 Right	250 ml	Lead
WF10-1	8/8/23		Hallway by Elevator Left	250 ml	Lead
WF10-2	8/8/23		Hallway by Elevator Right	250 ml	Lead
WF11-1	8/8/23		Hallway by Gymnasium Left	250 ml	Lead
WF11-2	8/8/23		Hallway by Gymnasium Right	250 ml	Lead
WF12-1	8/8/23		Hallway by Room 272 Left	250 ml	Lead
WF12-2	8/8/23		Hallway by Room 272 Right	250 ml	Lead
WF13-1	8/8/23		Cafeteria by Bathrooms Left	250 ml	Lead
WF13-2	8/8/23		Cafeteria by Bathrooms Right	250 ml	Lead
WF14-1	8/8/23		Fitness Center Left	250 ml	Lead
WF14-2	8/8/23	0730	Fitness Center Right	250 ml	Lead

All samples were collected from water fountain bubblers only.