



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

Health and Safety Report

District	Location	Project #
Fallsburg Central School District	Junior/Senior High School	2021-45
Site Visit Date(s)	Investigation type	Investigator(s)
4/27/2021	Lead in water	Jesse Morrill Gary Bowers II

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Project summary

At the request of the Fallsburg Central School District, on Tuesday, April 27th, 2021, Sullivan County BOCES Health and Safety Office, Gary Bowers II and Jesse Morrill, collected samples for lead in drinking water at the FCSD's Fallsburg Junior/Senior High School, in accordance with the emergency regulation titled: *Lead Testing in School Drinking Water* 10 NYCRR Subpart 67-4, effective 5/9/2018.

This regulation 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 Protection 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 1st and 2nd draw testing process, while the NYS regulation requires only 1st draw sample collection. The acceptable limit for lead in water is 15 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)



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Examples of possible “Non-applicable Outlets” include tempered water outlets, 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)*

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 Tuesday, April 27th, 2021, samples were collected from potable water outlets at the Fallsburg Junior/Senior High School. The total number of samples collected and submitted from the Junior/Senior High was 73. 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 EnviroTest Laboratories in Newburgh, NY, and all samples were delivered to the lab on the date of collection. EnviroTest Laboratories is NYS ELAP-approved (#10142) for potable and non-potable water analysis.



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Results

Subpart 67-4 requires a response for any plumbing outlet that exceeds the *action level* of 15 micrograms per liter (mcg/L) or 15 part per billion (ppb). Lab results indicated that 4 fixtures exceeded the reporting limit of greater than 15ppb. An additional 16 fixtures exceeded 5ppb lead in water, for a total of 20 fixtures exceeding 5ppb lead in water. Although <15ppb is the action level for this current round of water sampling, it is anticipated that the action level will drop to <5ppb for the next round of water sampling in approximately three years.

Sample #	Date	Time	AREA	250 ml HNO3	Analysis Requested	Results PPB
100-2	4/27/2021	07:30	Girls locker room left sink	250 ml HNO3	lead	1.54
100-3	4/27/2021		Girls locker room right sink	250 ml HNO3	lead	1.97
100-8	4/27/2021		Boys locker room left sink	250 ml HNO3	lead	2.02
100-9	4/27/2021		Boys locker room right sink	250 ml HNO3	lead	2.40
100-10	4/27/2021		Boys locker room bottle fill	250 ml HNO3	lead	ND<1.0
100-16	4/27/2021		Room 109 sink	250 ml HNO3	lead	1.05
100-17	4/27/2021		Room 109 ice machine	250 ml HNO3	lead	2.72
100-18	4/27/2021		Room 107 left sink	250 ml HNO3	lead	ND<1.0
100-19	4/27/2021		Room 107 left center	250 ml HNO3	lead	ND<1.0
100-20	4/27/2021		Room 107 center	250 ml HNO3	lead	1.37
100-21	4/27/2021		Room 107 right center	250 ml HNO3	lead	ND<1.0
100-22	4/27/2021		Room 107 right	250 ml HNO3	lead	ND<1.0
100-23	4/27/2021		Kitchen 3 bay left sink	250 ml HNO3	lead	1.18
100-24	4/27/2021		Kitchen 3 bay right sink	250 ml HNO3	lead	8.13
100-25	4/27/2021		Kitchen center island sink	250 ml HNO3	lead	ND<1.0
100-26	4/27/2021		Kitchen foot pedal sink	250 ml HNO3	lead	8.81
100-27	4/27/2021		Kitchen ice machine	250 ml HNO3	lead	ND<1.0
100-28	4/27/2021		Kitchen dish wash sprayer	250 ml HNO3	lead	ND<1.0
100-31	4/27/2021		Girls bathroom sink left	250 ml HNO3	lead	ND<1.0
100-32	4/27/2021		Girls bathroom sink right	250 ml HNO3	lead	ND<1.0
100-35	4/27/2021		Bottle filler station (outside boys bathroom 101)	250 ml HNO3	lead	ND<1.0
00-1	4/27/2021		Girls locker room sink left	250 ml HNO3	lead	4.13
00-2	4/27/2021		Girls locker room sink right	250 ml HNO3	lead	1.48
00-3	4/27/2021		Girls locker room bottle fill	250 ml HNO3	lead	ND<1.0
00-6	4/27/2021		Boys locker room sink left	250 ml HNO3	lead	3.77
00-7	4/27/2021		Boys locker room sink right	250 ml HNO3	lead	2.40
00-8	4/27/2021		Boys locker room bottle fill	250 ml HNO3	lead	ND<1.0
00-11	4/27/2021		Room 011 sink right	250 ml HNO3	lead	3.02
00-12	4/27/2021		Room 011 sink left	250 ml HNO3	lead	3.20



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00-13	4/27/2021	Room 007 sink left	250 ml HNO3	lead	6.83
00-14	4/27/2021	Room 007 sink right	250 ml HNO3	lead	79.6
00-15	4/27/2021	Room 016 sink	250 ml HNO3	lead	4.97
00-16	4/27/2021	Room 009 sink	250 ml HNO3	lead	12.0
00-17	4/27/2021	Room 012 sink left	250 ml HNO3	lead	3.54
00-18	4/27/2021	Room 012 sink center	250 ml HNO3	lead	1.94
00-19	4/27/2021	Room 012 sink right	250 ml HNO3	lead	55.8
300-1	4/27/2021	302-G principal's office bathroom sink	250 ml HNO3	lead	4.51
300-2	4/27/2021	302-J main office bathroom sink	250 ml HNO3	lead	13.6
300-3	4/27/2021	Nurses office sink	250 ml HNO3	lead	7.51
300-4	4/27/2021	Nurses office bathroom sink	250 ml HNO3	lead	3.29
300-6	4/27/2021	Bottle fill outside library	250 ml HNO3	lead	5.40
300-7	4/27/2021	Library office sink	250 ml HNO3	lead	ND<1.0
300-8	4/27/2021	313-B library IT office sink	250 ml HNO3	lead	6.31
300-9	4/27/2021	318 girls bathroom sink left	250 ml HNO3	lead	1.66
300-10	4/27/2021	318 girls bathroom sink center	250 ml HNO3	lead	5.05
300-11	4/27/2021	318 girls bathroom sink right	250 ml HNO3	lead	8.84
300-12	4/27/2021	318 boys bathroom sink left	250 ml HNO3	lead	25.1
300-13	4/27/2021	318 boys bathroom sink center	250 ml HNO3	lead	3.74
300-14	4/27/2021	318 boys bathroom sink right	250 ml HNO3	lead	8.23
300-18	4/27/2021	Girls bathroom sink	250 ml HNO3	lead	3.67
300-19	4/27/2021	Boys bathroom sink	250 ml HNO3	lead	ND<1.0
200-16	4/27/2021	211 Girls bathroom sink left	250 ml HNO3	lead	ND<1.0
200-17	4/27/2021	211 girls bathroom sink right	250 ml HNO3	lead	3.06
200-18	4/27/2021	Boys Bathroom sink left	250 ml HNO3	lead	*****
200-19	4/27/2021	Boys bathroom sink right	250 ml HNO3	lead	ND<1.0
200-21	4/27/2021	Band bathroom sink	250 ml HNO3	lead	11.0
CA-4	4/27/2021	Business office sink	250 ml HNO3	lead	2.32
CA-6	4/27/2021	Mens bathroom sink (across from records room)	250 ml HNO3	lead	5.77
CA-7	4/27/2021	Womens bathroom sink (across from records room)	250 ml HNO3	lead	3.77
CA-8	4/27/2021	Bottle fill	250 ml HNO3	lead	ND<1.0
400-3	4/27/2021	404-A faculty room sink	250 ml HNO3	lead	4.09
400-4	4/27/2021	Room 406-A sink	250 ml HNO3	lead	1.34
400-32	4/27/2021	Room 416 boys bathroom sink left	250 ml HNO3	lead	7.14
400-33	4/27/2021	Room 416 boys bathroom sink center	250 ml HNO3	lead	8.27
400-34	4/27/2021	Room 416 boys bathroom sink right	250 ml HNO3	lead	3.91
400-36	4/27/2021	Room 418 girls bathroom sink left	250 ml HNO3	lead	2.96
400-37	4/27/2021	Room 418 girls bathroom sink center	250 ml HNO3	lead	7.65
400-38	4/27/2021	Room 418 girls bathroom sink right	250 ml HNO3	lead	23.6
400-40	4/27/2021	Bottle fill outside room 416	250 ml HNO3	lead	ND<1.0
400-43	4/27/2021	Room 430A girls bathroom sink	250 ml HNO3	lead	2.00
400-44	4/27/2021	Room 430 boys bathroom sink	250 ml HNO3	lead	1.75



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400-45	4/27/2021		Men's Bathroom Sink	250 ml HNO3	Lead	1.66
400-46	4/27/2021	09:15	Women's Bathroom Sink	250 ml HNO3	lead	2.34

This was reported to the district as soon as the lab results became available. See attached documents from EnviroTest Laboratories titled *Analytical Report* (job number: 420-196093-1) for the full lab results.

***** = The laboratory was unable to obtain a result from this sample. We recommend that District re-sample the outlet, or consider remediation of the fixture.

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;
2. Provide building occupants with an adequate supply of water for drinking and cooking until remediation is performed;
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)



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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 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)



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- ***“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 15 ppb to the local health department.
- Within 10 business days of receipt of laboratory reports:
 2. Report any and all lead results greater than 15 ppb to all staff, parents and guardians in writing. Physical written notification should be distributed to all



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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 numeric test results of all lead testing, information about remedial actions taken, and a list of any lead-free buildings on the school's website. This should be readily visible and remain posted on the schools website for the duration of the compliance period.
- 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.

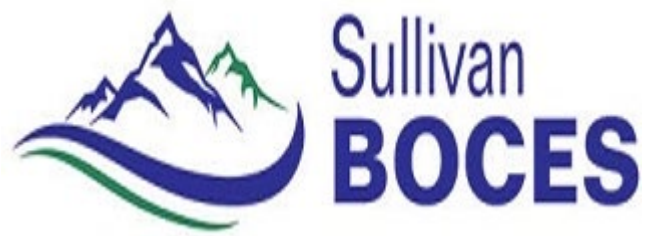
Health, N. D. (September 23, 2016). *Lead Testing in School Drinking Water*. Albany, NY: NYS Dept of Health.

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

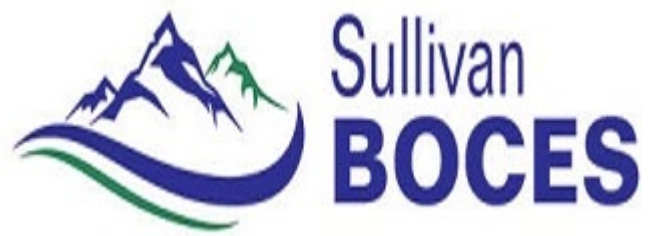
NYS DOH Lead Testing in School Drinking Water 2020 Compliance Requirements November 2019 Webinar Presentatio

Appendix A



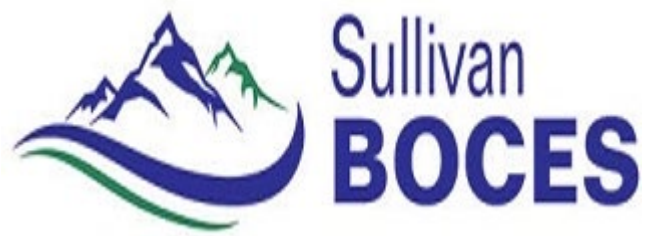
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Appendix B