

**FREQUENTLY
ASKED QUESTIONS
CONCERNING WATER TESTING**

August 31, 2018
UPDATED: September 14, 2018
UPDATED: October 2, 2018
UPDATED: October 12, 2018

1. Why Test School Drinking Water for Lead?

High levels of lead in drinking water can cause health problems. Lead is most dangerous for pregnant women, infants and children under six years of age. Exposure to high levels of lead during pregnancy contributes to low birth weight and developmental delays in infants. In young children, lead exposure can lower IQ levels, affect hearing, reduce attention span, and hurt school performance. At very high levels, lead can even cause brain damage. To protect public health, the U.S. Environmental Protection Agency (EPA) suggests that schools and daycare facilities test their drinking water for lead. If lead is found at any water outlet at levels above 15 parts per billion (ppb), EPA recommends taking action to reduce the lead.

2. Which of the buildings were effected? How many sinks used as drinking water sources were taken out of service? How many fountains were taken out of service?

Tested Buildings	Number of effected sinks removed from service	Number of effected fountains removed from service
Columbia Elementary	2	8
Franklin Elementary	4	7
Lafayette Elementary	12	4
Hammond High	1	0
Miller School	6	21
Gavit Middle/High	0	0
Scott Middle School	1	4
Lincoln Elementary	1	0
Morton Middle/High School	1	2
Area Career Center	0	3
Clark Middle/High	0	3

3. Which of the buildings were not tested and why?

The following buildings were not tested:

Administration Center
Warehouse
Transportation Center
Eggers Middle School (remodeled under current standards)
Edison Elementary School
Harding Elementary School
Hess Elementary School
Irving Elementary School
Jefferson Elementary School
Kenwood Elementary School (Remodeled under current standards)
Maywood Elementary School
Morton Elementary School
O'Bannon Elementary School
Wallace Elementary School

These buildings were not tested because they were built after 1986 or are not used for instructional purposes. In 1986, building codes changed to prohibit the use of lead-containing components in water systems intended for human consumption. We will include ALL buildings in the next water testing regardless of use or date of construction.

4. Should we be concerned about the City's drinking water?

The School City of Hammond has verified with the City of Hammond that the water supply for residents, schools and businesses is safe. The water purification plant and the entire circulatory system are routinely tested, both internally and by the Indiana Department of Environmental Management, and shows no elevated levels of lead or other harmful chemicals.

5. Should we be concerned about our water in our home?

Buildings built before 1986 often used various components in the construction of water systems and piping that contained lead. For that reason, if you live in a home that is older than 1986, you may decide to have your personal water systems tested. (After 1986, building codes were changed prohibiting use of lead-containing components in water systems intended for human consumption.).

6. Who did the Hammond Public School System (School City of Hammond) contract with to conduct drinking water testing?

Pekron Consulting of Whiting, Indiana

7. What is the background of the consultant, their experience in this field, and with the school system on past testing?

Pekron Consulting has been in business for over 30 years. Its employees carry certifications in all forms of environmental fields and maintain those certifications through continued education. The Hammond Public School System has employed the services of Pekron Consulting for various environmental-related areas over the past 10 years, including Asbestos, Indoor Air Quality and Lead testing (soil and water). Pekron has conducted large-scale drinking water testing for numerous public school systems in the state of Illinois where laws require such testing. The Hammond Public School System is the first Indiana public school system for which Pekron has provided large-scale water testing services.

8. Has Pekron conducted drinking water testing for the school system in the past, to what extent, and with what results?

Pekron has collected samples of drinking water on a limited basis. Specific areas within several school system buildings host a federally funded educational program (Head Start) requiring testing for several environmental conditions, including lead levels in drinking water. The most recent testing occurred in 2016. There were three drinking water sources in three buildings that reported levels of lead above the EPA action limit of 15 parts per billion (ppb). Remediation efforts by the school system were successful in bringing the sources into compliance. Remediation included flush/retest; fixture replacements; filter installation.

9. What testing protocols or guidance did Pekron employ for these tests?

Pekron Consulting incorporates the use of the EPA's guideline 3T's for Reducing Lead in Drinking Water in Schools, with the incorporation of IDEM's action level of 15 ppb in place of the 3T's action level of 20 ppb. This guideline is also used by the Indiana Department of Environmental Management (IDEM- the regulatory agency for environmental issues in Indiana) and was the backbone guideline for the now-expired Indiana Finance Authority Lead Sampling Program for Schools.

10. How did this testing compare to the testing that Indiana was offering at no cost through the Indiana Finance Authority?

Pekron used the same processes. However, the major differences were:

1. Drinking water sources were identified and provided to Pekron Consulting by the school system's plumbing shop;
2. Only school buildings constructed before 1986 were included in the testing. Non-instructional and buildings constructed after 1986 were not included;
3. The water systems at each building tested was not representative of normal operating conditions as the flow through the systems was nearly non-existent for a full 60 days prior to the samples having been collected.

11. What action was taken by the school system and when?

Pekron collected two samples of water at every drinking water source identified: One at first tap opening and one after a thirty-second flush. The first set of samples were analyzed and any drinking water sources that tested above the EPA action level of 15 ppb were reported to the school system with the recommendation that those sources be removed from service. The school system complied with that recommendation on the same day. The school system supplemented each drinking water source taken out of service with water supplied from sources within the same building that tested below the EPA action level. The school system decided later to provide bottled sources of water at the request of the public.

12. Samples were collected on August 9, 10, 13 and 14, but results were not received until August 28. Why did it take so long?

Laboratory analyses requires 5-7 days. Upon receipt, Pekron compiles all data, analyzes the data to inform its recommendation, develops its report, and communicates to the client. For reference, the results of the testing program conducted through the State were reported to the participating school systems five weeks following the conclusion of the testing.

13. What happened after the first-draw results were analyzed?

Pekron had the second “flush” samples analyzed for all drinking water sources that reported levels of lead approaching or above the EPA action level (total of C and D, Table 1 below)

Table 1

First-draw sample results		
A	Quantity of drinking water sources sampled	247
B	Quantity of first-draw analyses reporting detectable lead levels (above 2 ppb)	193
C	Quantity of first-draw analyses reporting lead levels approaching EPA action level of 15 ppb (approaching defined as within 2.7 ppb of the action level)	14
D	Quantity of first-draw analyses reporting lead levels exceeding EPA action level of 15 ppb	82
Second-draw “flush” sample results		
AA	Quantity of second-draw samples analyzed	96
BB	Quantity of second-draw analyses reporting detectable lead levels (above 2 ppb)	87
DD	Quantity of second-draw analyses reporting lead levels exceeding EPA action level of 15 ppb	32

Pekron recommended that drinking water sources taken out of service after the first-draw samples results were received remain out of service and that a second complete round of testing be completed. This second complete round of testing will incorporate all drinking water sources in all buildings regardless of construction age or building use. Pekron Consulting will identify all sources to be tested and will follow EPA’s guideline 3T’s for Reducing Lead in Drinking Water in Schools using IDEM’s stricter action level for lead of 15 ppb.

14. Will all faucets be tested, including bathroom sinks, science labs, hose bibs, custodial service sinks and other faucets?

There are no guidelines recommending testing of water sources that are not intended to provide water for consumption. It is recommended that these water sources be placard with signs indicating “Do Not Drink” with pictures used in areas where small children may have access. It is recognized that there may be exceptions for isolated educational programs where water may be used from a non-drinking water source for educational purposes and could be consumed. The district will consider water testing for these isolated programs as they are implemented.

15. Is the water from drinking fountains and other drinking water sources safe to drink if there are some drinking fountains and other drinking water sources removed from serviced due to lead levels exceeding the EPA action level of 15 ppb?

In the buildings tested, drinking water sources that remain in service have been tested with results below the EPA action level for lead. The water from these sources is safe to consume.

16. Are there best-practices or other guidelines that identify when a system should be flushed and how long a flush should be done?

EPA guidelines (only after weekends or vacations when lead levels may be highest):

- Adequate for most buildings: Open faucets and allow full-flow for 10 minutes;
- Open drinking water fountain valves on non-refrigerated units for 30-60 seconds until water runs cold;
- Allow water to run for 15 minutes on refrigerated water fountains – or replace with NSF-approved devices;
- Open kitchen and other drinking/cooking faucets and allow water to run for 30 seconds or until cold.

17. What other guidance or recommendations might be forthcoming?

Implement routine, interim, and permanent control measure, using the most current guidelines and recommendations from IDEM. Plans will be modified as applicable regulations, guidelines and recommendations evolve. Currently, all testing in the State of Indiana is completely voluntary.

Routine Control Measures

- Create aerator cleaning maintenance schedule to clean debris from accessible aerators frequently
- Use only cold water for food and beverage preparation
- Instruct students and staff to run water before drinking or have staff run water before students arrive
- Placard bathroom sinks with notices that water should not be consumed, using pictures if there are small children using bathrooms

Interim Control Measures

- Flush piping systems, especially after weekends or vacations (see Question 16)
- Flush several designated drinking fountains while taking all others temporarily out of service
- Use bottled water sources
- Shut off problem outlets

Permanent Control Remedies

- Replace problem sources (pipes, fittings, small drinking water storage devices, valves, fittings, faucets, drinking fountains) with new components meeting NSF Standard 61, Sections 4, 8 and 9.
- Use Point of Use (POU) filtration devices
- Check grounding wires if lead pipes are present to reduce corrosion
- Replace any lead piping
- Reconfigure plumbing to bypass problem areas for any drinking water sources
- Perform manual flushing on a scheduled basis
- Install automatic flushing time-operated solenoid valves
- Provide bottled water if all other methods are impractical or cost-prohibitive.
- Ensure all maintenance and new construction materials use lead-free materials.
- Shut off problem outlets and permanently remove from service.
- Provide education to students about hygienic practices, including only drinking water from identified drinking water sources and never from hand washing sinks, hose bibs, laboratory faucets or other non-drinking water sources.
- After any changes are made to remediate, sample the water from the effected source to ensure that the remedial actions resulted in lead levels being reduced to below the EPA action level of 15 ppb.

18. Are there recommendations forthcoming for regular testing of drinking water?

We will always follow current regulations and recommendations. Current guidelines indicate:

Schools with any samples over 15 ppb - Sample all drinking water sources once every year.

Schools with all samples under 15 ppb – Sample all drinking water sources once every 3 years.

19. Do students or staff need to be tested for blood lead levels?

Anyone who has a concern about blood lead levels may seek testing through their doctor or through the applicable health department. Water, soil and air, as well as other lead-containing materials, such as paint, may influence blood lead levels. More information may be found at the Indiana Healthy Homes division of the Indiana State Department of Health: <https://www.in.gov/isdh/27286.html> or at 1-800-382-9480

20. If I have any questions about this ongoing testing program, who should I contact and how?

The preferred method for inquiries is via email at SCHAdmin@hammond.k12.in.us. This will allow us to provide an answer directly as well as update our online information. Otherwise, you may contact the Superintendent of Schools at 219-933-2400 where you will be directed to someone who may address your questions.

21. Are there any updates on actions that the Hammond public school system has taken?

The activities that have occurred since August 31, 2018 include the following:

- Ongoing communication continue with the building administration to ensure information is clear and concise so that they may communicate effectively with staff and parents
- Bottled water through dispensers is being provided
- Placards have been installed at all student-accessible water sources that are not intended to be used for drinking purposes (restroom sinks, science labs, etc.):



Do Not Drink



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- **WILL COMPLETE DURING SECOND ROUND OF TESTING**: Pekron Consulting advised the school district that all drinking water sources except those listed in Item 12, Table 1, Row DD may be brought back into service. This advisement reduces the number of drinking water sources remaining out of service from **82** to **32** (**50** sources placed back into service). School administration and staff will be notified with an updated list of drinking water sources that remain out of service once these 50 sources are turned back on.

- Pekron Consulting provided the school district with a three-phase plan for a second round of testing:

Phase 1

- **COMPLETED 10/10/18:** Inventory of all drinking water and non-drinking water sources including sinks, fountains, bubblers, hose spigots, and ice machines at the eleven schools previously tested and three (3) additional locations including the central office administration building, building and grounds office building, and transportation building (non-instructional buildings constructed before 1986).
- **COMPLETED 10/10/18:** The inventory will be incorporated onto an excel spreadsheet and will include facility name, source location, identification of source type, state of operational condition, and designate if source is designed for drinking purposes.
- **STARTED 10/11/18:** School City of Hammond will identify which sources can be terminated from sampling strategy based upon appropriate use and School City of Hammond decision to permanently retire a source. Information will be incorporated into the excel inventory spreadsheet, and locations of sources will be identified on maps provided by School City of Hammond.
- Information regarding Pekron's recommendation for the Phase 2 sampling will be provided to the Board of School Trustees following the completion of the above activities.

Phase 2

- School City of Hammond will flush the water system at a timeframe to comply with the EPA 3-T Guidelines to achieve the stagnation period of 8 to 18 hours.
- A schedule will be developed to coordinate the flushing and stagnation time with each facility's scheduled sampling date.
- Pekron will perform first and second draw water samples at sources identified and confirmed within Phase 1 to comply with the EPA 3-T Guidelines. Samples will be uniquely labeled to identify each school or building, and samples will be numbered according to the number of sources collected at each location (each starting with no. 1).
- Water samples will be analyzed by an accredited laboratory and results will be incorporated onto the excel spreadsheet.

Phase 3

- Pekron will assist School City of Hammond (SCH) with a Water Management Plan to include:
 - Plumbing profile to identify how water flows through each building to all water outlets. Profile development will require input and assistance from School City of Hammond employees (plumber, engineer, maintenance, etc.);
 - Remedial and corrective action plan for sources exceeding the IDEM lead in water action level;
 - Flushing schedules and duration; and
 - Water quality monitoring program which includes regular sampling schedule of drinking water sources based upon previous testing results.

- Beginning the week of September 24, Pekron Consulting, with the assistance of school district maintenance personnel, began the process of inventorying all water sources in the buildings listed in Item 2 as well as in the first three buildings listed in Item 3 (Non-instructional buildings constructed before 1986: Administration, Transportation and Warehouse). The process is scheduled to be completed by the end of the week of October 1.
- It is anticipated that Pekron Consulting will provide the Board of School Trustees with a set of recommendations for the second round of sampling at a meeting to be scheduled mid-October.

The preferred method for inquiries regarding this project is via email at:

SCHAdmin@hammond.k12.in.us.

This will allow us to provide an answer directly as well as update our online information. Otherwise, you may contact the Superintendent of Schools at 219-933-2400 where you will be directed to someone who may address your questions.

For further information related to this matter, please visit any of the following Internet links:

[IFA Lead Sampling Program Guidance for Public Schools](https://www.in.gov/ifa/files/IFA%20Lead%20Sampling%20Program%20Guidance%20for%20Schools.pdf)

(<https://www.in.gov/ifa/files/IFA%20Lead%20Sampling%20Program%20Guidance%20for%20Schools.pdf>)

[IFA Lead Sampling Program Self-Assessment for Public School Officials](file://state.in.us/file1/ifa/shared/IFA-Lead%20Program/School%20Quiz/Lead%20Sampling%20Program%20Self-Assessment%20Page%201.mht)

(<file://state.in.us/file1/ifa/shared/IFA-Lead%20Program/School%20Quiz/Lead%20Sampling%20Program%20Self-Assessment%20Page%201.mht>)

[IFA 9/04/2018 Lead Sampling Program and Results](https://www.in.gov/ifa/files/09.04.18%20Lead%20Sampling%20Program%20Enrollment%20%20Results.pdf)

(<https://www.in.gov/ifa/files/09.04.18%20Lead%20Sampling%20Program%20Enrollment%20%20Results.pdf>)

[IDEM Drinking Water and Lead](http://www.in.gov/idem/6968.htm)

(<http://www.in.gov/idem/6968.htm>)

[EPA 3T's for Reducing Lead in Drinking Water in Schools](https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf)

(https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf)

[IDEM Database of Water Sampling Results for Public Water Systems](https://myweb.in.gov/IDEM/DWW/)

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