Senate Bill - 550
(aka) Public Act 099-0922
Testing for Lead in Schools
2017
Agenda

- Hazards of Lead - Who is at Risk
- Sources of Lead
- SB 550 Requirement for schools
  - Sampling
  - Notification
- Ways to Reduce Risk
At risk population

• Fetuses, Infants, and children up to age 6 have rapidly growing bodies which, unfortunately, are quick absorbers of lead.
• Children- Behavior problems, Lower IQ and Hyperactivity, Slowed growth
• Pregnant Women- Premature birth, reduced fetus growth
• Adults- Decreased kidney function, reproductive problems, increased blood pressure
Sources of Lead

- Paint chips or dust
- Soil
- Pottery or toy jewelry
- Water
  - Children & Adults – can make up 20% of person’s total lead exposure
  - Infants – baby Formula, made with lead tainted tap water, can be a major contributor
How does lead get into drinking water?

• **Lead is Rarely found in:**
  • source water (lakes, rivers or wells) or water produced and distributed into the water mains

• **Lead service lines to homes can be a problem**
  • Lead WATER Service lines were common in the 1800’s through WWII, and some towns allowed up until 1980’s. **All towns are different!**
How does lead get into drinking water?

- Plumbing fixtures with high lead content may be a problem
- Homes with copper pipes used lead solder prior to 1986
- Homes/buildings built after 1986 have minimal risk for lead except from plumbing fixtures
- Schools and business’s with service lines over 2” are likely to be cast iron, not lead.
How Does Water Get to your Building
Lead Plumbing Fixtures

• Plumbing fixtures could contain lead

• Products sold after January 4, 2014, by law, must contain low levels of lead.

• Check certification and labels (can be difficult in the field) to verify less than 0.25 % lead by weight
Requirements of SB - 550 SCHOOLS

Schools are required to test all WATER sources used for cooking and drinking in all schools where K - thru 5th graders are present that were built before JANUARY 1, 2000
SB 550- IDPH

Within 90 days from effective date IDPH must provide mitigation strategies for schools on their website

IN PROGRESS
Sampling Protocol for Drinking Water in Schools

Emailed to more than 5,500 School’s on February 16, 2017

A Guidance Document for Drinking Water Testing
SB 550-SCHOOLS - SCHEDULE

Schools constructed prior to 1/1/1987 complete sampling by 12/31/2017

Schools constructed after 1/1/1987 through 1/1/2000, complete sampling by 12/31/18

Schools constructed after 1/1/2000 no testing required (pending)
Sampling protocol shall consist of 2 consecutive samples.

The first 250 ml sample shall be a first draw sample. Water must sit for minimum of 8 hours and maximum of 18 hours.

Second sample is 250 ml 30 seconds after the first. Allow water to run entire time between 1st and 2nd sample.
Exceptions & Waivers – letter sent recently

TO: School Districts and Chief School Administrators
FROM: Illinois Department of Public Health, Division of Environmental Health
DATE: February 24, 2017
SUBJECT: Requesting a school water testing waiver

DETAILS AT: IDPH WEB SITE

If multiple faucets use the same drain, only 1 second-draw sample must be taken
TESTING AND NOTIFICATION OF RESULTS

Schools must provide IDPH with sample results within 7 days of receipt of sample results.

Water must sit a Min. of 8 hrs. and a Max. of 18 hours.

Schools must use an IEPA accredited drinking water laboratory.
Schools - TESTING AND NOTIFICATION OF RESULTS

**DO NOT SAMPLE ON SUMMER BREAK!!**

**TESTING AND NOTIFICATION OF RESULTS**

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**TESTING AND NOTIFICATION OF RESULTS**

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**DO NOT PRE-FLUSH PRIOR TO SAMPLING!**
SCHOOLS - NOTIFICATION OF RESULTS

NOTIFICATION OF RESULTS

If sample results less than 5 ppb:
GENERAL NOTIFICATION REQUIRED
Schools shall use school website at a minimum to notify parents of results

If sample result exceed 5 ppb of lead:
DIRECT NOTIFICATION REQUIRED
School must notify all parents
If sample result exceed 5 ppb of lead, school must notify all parents of students and include:

- Location of sample tap exceeding 5 ppb and test result at the location
- Hazards of lead in drinking water (USEPA website)
- Ways to mitigate risk
Develop a Sampling Plan

- Sample schools built before 1987 first
- Secure General Floor Plan of School
- Identify all fixtures for cooking and drinking on floor plan
- Label all sources with a unique numerical identifier on floor plan
Develop a Sampling Plan (continued)

1. Contact lab for bottles & sampling instructions
2. Make sure all members of the team are on the same page and train employee(s) on how to take the samples
3. Plan sampling schedule
4. Take samples
Legend
School code- location- number
School- McMurphy
Location- Kitchen
Number- North 1
MC-K-N1

Water Main Enters in basement
SAMPLING PROCEDURE

• Ensure water has sat idle for **8-18** hours in pipes and fixtures
• Each fixture must be sampled twice
  • First Sample = first draw sample
  • Second Sample = 30 second after first draw

• **LINK AT IDPH WEBSITE:** New York Department of Health has a good video
  • *Sampling for Lead in Drinking Water in NYS Schools* – YouTube Video

• Position fist container under fixture and turn water on (do not allow water to spill)
• Fill the container completely (to the shoulder of the container)
• Remove 1\textsuperscript{st} container and allow water to run continuously for 30 seconds and then fill 2\textsuperscript{nd} container
SAMPLING PROCEDURE

• Re-cap both containers and ensure labels are marked to correctly identify following:
  • Date and time sample taken
  • Unique fixture number
  • Sample description (1st draw or 30 second sample)

• Continue sampling remaining fixtures
  • Note: multiple days may be required to perform all sampling to avoid interference with other fixtures 1st draw and 2nd -30 second sample

• Complete laboratory forms
• Prepare samples for shipping or direct delivery
HOW WATER PROVIDERS CAN HELP

• Provide list of IEPA Drinking water accredited labs
  • Refer to IDPH web site, as necessary
• Provide assistance on proper sampling techniques
• Provide assistance with sampling plan
• Assist with sample letter notifying parents of results
• Speak with school board/parents
• Provide assistance in developing a water management plan.
• Provide websites for:
  • educational materials for schools and parents
  • How lead gets into drinking water
MITIGATION STRATEGY
-Water management plan-

• Unlike wine, water does not get better with age
• Basically develop a flushing program
  • Use floor plan to identify fixtures at far end(s) of incoming line
  • Open those fixtures and allow to run on Monday mornings or after long breaks (time depends upon distance)
• Open all fixtures (10-30 seconds)
  • Use students to be water patrols
REFERENCES

• Illinois Department of Public Health (IDPH) web site
  • http://www.dph.illinois.gov/topics-services/environmental-health-protection/lead-in-water

• Illinois Section AWWA (ISAWWA) web site
  http://www.isawwa.org

• USEPA Web site
  • https://www.epa.gov/lead/learn-about-lead

• IEPA web site
  • http://www.epa.illinois.gov/highlights/resources-on-lead

• Centers for Disease Control (CDC) web site
  • https://www.cdc.gov/nceh/lead/leadinwater/
Questions Concerning Lead in Drinking Water?

Communicate with YOUR Local WATER PROVIDER

School testing rules & regulations - contact IDPH

Questions?