



May 6, 2016

Mr. John Susino
Business Administrator/Board Secretary
Bergen County Technical and Special Services School District
540 Farview Avenue, Room 2300
Paramus, New Jersey 07652

**RE: Initial Lead Sampling Results and Recommendations
Bergen County Technical & Special Services School District Buildings
CHA Project No. 31521**

Dear Mr. Susino:

CHA Consulting, Inc. (CHA) has prepared this letter to provide a summary of the results of the drinking water sampling for lead effort in district buildings and our initial recommendations for next steps.

Due to the findings presented below, we believe it is important to convey information as quickly as possible. There are a number of questions that remain to be answered and we are working quickly to define the effort needed to develop those answers.

Sample Activities/Methodology

CHA was retained by the District to collect drinking water samples at 22 district buildings and test them for lead. Two types of samples were collected from most buildings. The first type was a “source” sample. The source sample is meant to check the lead concentrations in the water supplied to the building and is typically a single sample in each building. To obtain the source sample CHA attempted to identify the closest accessible collection point (faucet, sink, spigot) to the service line where it enters the building. In most cases this was completed with the assistance of facility staff who advised as to the location of the service line entry to the building and/or through visual identification of the service line entry point.

The second type of sample was an “end point” sample which was collected from locations where water would be used for consumption by building occupants and focused on higher priority points such as drinking fountains and kitchen sinks. The number of samples collected is intended to be a generally representative sample for the purposes of screening each facility. For the endpoints that were sampled, we chose points in different areas (wings) and on different floors of each building. Additionally, in those building that we were aware had additions constructed at different times, an attempt to collect end point samples from each “vintage” was made.

Pursuant to sampling protocols, all of the water samples collected during the site visits were “first draw” samples. A first draw sample means that the water had not been used in each building for at least eight hours prior to sampling in order to collect a representative first draw sample. Upon selection of each sampling location, CHA personnel, using new disposable gloves and laboratory supplied containers, filled the sample container from the sampling location without allowing water to flow prior to collection. Each sample location was recorded and each sample labeled for identification. The samples were delivered to TestAmerica, Inc. in Edison, New Jersey via a TestAmerica courier and were analyzed for Lead via EPA Method 200.8.

Summary of Results/Buildings Affected

The sample results were compared to the New Jersey Department of Environmental Protection (NJDEP) and United States Environmental Protection Agency (USEPA) Action Level for Lead in drinking water of 15 parts per billion (ppb). EPA has specifically stated in their Revised Technical Guidance “3Ts for Reducing Lead in Drinking Water in Schools”, that an action level of 20 ppb be used for schools. The action levels, as set forth by NJDEP and USEPA, represent trigger points at which remedial action is to take place to mitigate the source of the elevated lead levels.

Upon evaluation of the sample results against the action levels of 15 and 20 ppb it was found that ten of the twenty-two buildings sampled have at least one source or end point sample result with a lead concentration greater than 20 ppb. The remaining twelve buildings had no detected concentrations of lead above the 15 ppb action level.

The twelve buildings with no lead detections above the more conservative action Level of 15 ppb) are as follows:

Woodridge	304 Valley Blvd., Woodridge
Garfield House	27 Lincoln Pl., Garfield
Teterboro Campus	504 Rt. 46, Teterboro
Union Street	334 Union St., Hackensack
Hackensack Campus - Day Care Building	200 Hackensack Ave., Hackensack
Hackensack Campus - PAL Building	200 Hackensack Ave., Hackensack
Hackensack Campus - Environmental Building	200 Hackensack Ave., Hackensack
Paramus Campus - New Building	296 E. Ridgewood Ave., Paramus
Paramus Campus - Montesano Building	355 E. Ridgewood Ave., Paramus
Paramus Campus - Solar House Career Crossroads	327 E. Ridgewood Ave., Paramus
Paramus Campus - EMS Training Building	281 Pascack Rd., Paramus
Paramus Campus - HAZMAT Building	275 Pascack Rd., Paramus



The ten buildings with lead detections above the action Level (15 ppb) are as follows:

Brownstone / St. Phillips Gateway	492 Saddle River Rd., Saddle Brook 293 Main St., Hackensack
Hackensack Campus - Main Building (Old Wing)	200 Hackensack Ave., Hackensack
Paramus Campus - Bleshman Building	333 E. Ridgewood Ave., Hackensack
Paramus Campus - Animal Care Building	275 Pascack Rd., Paramus
Paramus Campus - Vocational School Building	275 Pascack Rd., Paramus
Paramus Campus - Springboard House	321 E. Ridgewood Ave., Paramus
Paramus Campus - The Barn	275 Pascack Rd., Paramus
Hackensack Campus - HVAC Building	11 Carol Ct., Hackensack
Hackensack Campus - Continuing Ed. Building	200 Hackensack Ave., Hackensack

Restrictions

At the present time, CHA recommends the restriction of the use of water in the 10 buildings listed above that had lead concentrations above the 15 ppb action level. The restrictions recommended are building-wide. Due to the collection of limited, representative samples within the subject buildings, the building-wide restriction recommendation is being made out of an abundance of caution until follow-up sampling and additional investigative measures can be executed to further isolate and confirm the areas and sources of elevated lead levels. The recommended restrictions are as follows.

- No use of water for direct drinking/ingestion (water fountains, sinks, etc.).
 - If the fixture cannot be turned off, a physical barrier, such as tape or an illustrative sign over the faucet should be used so that everyone knows it should not be used.
- For food preparation areas (kitchens, cafeterias, etc.) flushing of the water outlets should be completed and use of water restricted to cold water only. This is in part in accordance with USEPA's guidance titled "Drinking Water Best Management Practices – For Schools and Childcare Facilities" and dated April 2013.
 - At the start of each day, before using any water for cooking, flush the cold water faucet by allowing the water to run for a period of time. Flushing times vary depending on your buildings pipes and outlets. A flushing plan should be developed, however until such time as it is prepared we recommend flushing the faucets for 15 minutes. This should be done for all water outlets used for cooking or food preparation.
 - Flushing, or opening up a tap and letting the water run, replaces the stagnant water that may have been in contact with lead-containing plumbing fixtures overnight or over the weekend. The longer water is exposed to lead pipes or solder the greater the likelihood of lead contamination.
 - If many taps need flushing, the tap farthest from the main pipe should be opened for approximately ten minutes to flush out the main pipe. Then, individual taps should be



flushed to rid stagnant water from the pipes. Keep in mind that if your facility has more than one wing there may be more than one tap that is furthest from the water line.

- Use only cold water to prepare food and drinks. Hot water dissolves lead more quickly than cold water and is therefore more likely to have greater amounts of lead.
- If hot water is needed, water should be drawn from the cold tap and heated.
- Use only thoroughly flushed water from the cold water tap for food preparation.

These restrictions are limited to the use of water for drinking/ingestion/food preparation, there is currently no restriction recommended for the use of water for washing (hands, face) or cleaning (pots/pans/silverware, floors, countertops, etc).

Initial Recommendations

The recommendations provided below are aimed at providing the District with the next steps for dealing with current results and ensuring that appropriate steps are taken to protect students and staff while additional follow up sampling and investigation is carried out. The restrictions outlined above represent a conservative approach and while more conservative than some of the recommendations below, the restrictions are meant to ensure caution is taken, until additional sampling and investigation is completed.

1. EPA recommends that schools and child care facilities take action if samples from drinking water outlets show lead levels greater than 15 ppb. The restrictions outlined above represent the first action.
2. Inform faculty, students and parents of results.
3. Retest the water in locations where lead exceeds action levels. "Follow-up flush samples are to be taken before a facility opens and before any water is used. Follow-up flush samples generally involve the collection of water from an outlet where the water has run for 30 seconds."
4. Collect additional water samples from remainder of system to determine building-wide issues and potential response measures.
5. Develop a plumbing profile where composition of piping, solder, and fixtures are identified throughout the system.
6. Encourage parents to have their children's blood tested for lead if high lead levels are detected in the water.

CHA will provide a proposal for follow-up sampling and investigation that will provide additional information and allow for the next response actions to be determined.



Sincerely,



Christopher Burns, PhD, PG
Chief Scientist, Vice President



Seth H. Fowler, CHMM
Principal Scientist

SF/CB/sc