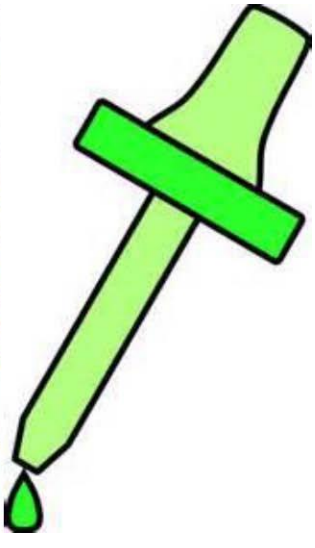
Overview of Testing Results for Lead in Drinking Water and Corrective Actions for
Naval Construction Battalion Center Gulfport, Mississippi
CHILD DEVELOPMENT CENTER ANNEX (Building 33)

The Navy is committed to maintaining safe drinking water on its installations. The Navy's water distribution system is regularly tested and in compliance with the Safe Drinking Water Act. Because lead exposure is a particular concern for children, and lead may be added to drinking water through the pipes, fittings, solder, and fixtures inside a building, the EPA recommends, but does not mandate, that we test the lead content of drinking water in priority areas such as youth centers (YCs), child development group homes (CDGHs) and child development centers (CDCs).

Navy environmental personnel conducted lead testing at the NCBC Gulfport Child Development Center Annex in accordance with Navy and EPA guidelines. Samples from the Child Development Center Annex were sent to a state-certified laboratory for analysis.

At the NCBC Gulfport Child Development Center Annex, nine (9) outlets used for drinking and cooking, as well as thirty-three (33) outlets used for hand washing were tested. Out of forty-two (42) samples collected, fourteen (14) water outlets initially tested above the EPA recommended level for lead in drinking water in schools and child care centers of 20 parts per billion (ppb). One part per billion is equal to one drop of water in an Olympic-size swimming pool.



The outlets that exceeded the EPA recommended level of 20 ppb were the kitchen food prep sink in room 206, four (4) hand washing sinks in room 201 which is not in use, two (2) hand washing sinks in room 203 which is not in use, one (1) hand washing sink in room 205, two (2) hand washing sinks in room 207, one (1) sink in room 206 used for cleaning, and three (3) hand washing sinks in room 202. With the exception of one outlet, these outlets are hand washing sinks and are not used for drinking or cooking.

Follow-up sampling at these outlet were conducted after removing the faucet aerators. A **faucet aerator** (or tap aerator) is often found at the tip of modern indoor water faucets. Without an aerator, water usually flows out of a faucet as one big stream. An aerator spreads this stream into many little droplets, which helps save water and reduce splashing. However, the aerator and screen can trap debris which can

accumulate lead.

After removing the faucet aerators, retesting showed that all outlets were below the EPA-recommended level.

A copy of all test results is enclosed for your information. The test results are presented in two tables: Table 1 **Summary of Results** summarizes the data by category of use (e.g., drinking, cooking, washing). Table 2 **Summary Statistics** summarizes all the data.

Table 1 provides a description of each sampling location using three columns; *Category*, *Sampling ID*, and *Outlet Description*. The *Category* column gives information about whether the outlet is used for drinking water (water fountain), cooking (food preparation), or washing (primarily hand-washing). The *Sample ID* column is the identification used to label each sample bottle. The *Outlet Description* column contains additional information to describe the outlet sampled under each category.

The next set of columns in **Table 1** provides *Initial Sampling Results*, and for those locations that exceeded the recommended level of 20 ppb the *Re-sampling Results*.

EPA sampling protocol requires water to not be used for between 8 and 18 hours prior to first draw sampling. Therefore, *Initial Sampling Results were from* first draw samples collected early in the morning before the CHILD DEVELOPMENT CENTER ANNEX opened and before any water was used. The *Initial Sampling Results* also indicate whether resampling is required and the date that fixtures greater than 20 ppb were secured. Outlets that exceeded 20 ppb are highlighted in yellow.

The *Re-sampling Results* includes columns for *First Draw* and flushing samples which help determine the source of lead. For cooking and washing outlets, aerators were removed before retesting:

- If the lead concentration of 30 second flush sample resulted in lower than 20 ppb lead, the aerators were the source of lead and the outlet can be used for drinking if the aerators are cleaned or replaced. All of the sinks, with the exception of one in room 202, fit in this category.
- If the lead concentration of the resampled first draw (but not the follow up 30 second flush) was greater than 20 ppb, the fixture was the source of lead. These fixtures can be used if water is flushed for 30 seconds before first use of the day or if the fixtures are replaced and retesting confirms that the new fixtures do not leach lead. The faucet in room 202 fits in this category. The faucet has been removed.
- If the lead concentration of the 30 second flush sample was greater than 20 ppb and greater than the lead concentration of the first draw resample, the source of lead is the plumbing upstream of the outlet. These outlets should be disconnected unless upstream plumbing is replaced. None of the water fountains or sinks fit in this category.

The *Corrective Actions* column describes actions that were taken to remediate the source of lead.

To learn more about lead in drinking water schools and day care centers visit this EPA website at: http://water.epa.gov/drink/info/lead/schools_index.cfm.

To learn more about your water, see the Gulfport annual water quality report: http://www.cnic.navy.mil/regions/cnrse/om/environmental_support/water_quality_information.html

To answer any questions you may have on the sampling program contact the NCBC Gulfport Public Affairs Officer at (228) 871-2699. If you have any health questions or concerns, you are encouraged to call the Naval Medical Center/Naval Branch Clinic at (228) 871-2810 Ext. 100 or your health care provider.