

## **DEPARTMENT OF THE NAVY**

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> 5090 Ser JB4/1046 28 Sep 2020

From: Commander, Joint Base Pearl Harbor-Hickam

To: Staff and Patrons of Joint Base Pearl Harbor-Hickam Harbor Child Development Center

(Building 623H)

Subj: SAMPLING AND TESTING FOR LEAD IN DRINKING WATER AT HARBOR CHILD

DEVELOPMENT CENTER

Ref: (a) OPNAVINST 5090.1E, Environmental Readiness Program

Encl: (1) Overview of Testing Results and Corrective Actions for Harbor CDC (Building 623H)

- 1. I am pleased to report that all water intended for consumption at this Child Development Center (CDC) has tested below the Environmental Protection Agency's (EPA's) lead screening level of 15 parts per billion (ppb). Initial results identified that seven outlets at Harbor CDC did not meet EPA's lead screening level. Shortly after receiving the initial results, we took those outlets out of service and performed corrective actions. Follow-up sampling identified that the seven outlets at Harbor CDC are now compliant with EPA's lead screening level and no further action is required. Enclosure 1 of this letter provides a summary of all sampling results for the entire facility.
- 2. These tests are conducted every 5 years, and samples are taken from all sources water used for drinking, cooking, or washing at all Youth Centers (YCs) and CDCs. Our latest tests were conducted in November 2019.
- 3. Per reference (a), we have adopted the EPA's recommendation that we test the lead content of drinking water in priority areas such as YCs and CDCs as policy and made this a top priority. Our environmental personnel conducted this testing following Navy and EPA guidelines, and samples were sent to a state-certified or accredited laboratory for analysis.
- 4. My team and I will continue to monitor and test water quality at all of our YCs and CDCs to ensure our water is safe to drink and use. I remain committed to the safety and health of all personnel and family members using our facilities and will keep you updated as necessary.
- 5. If you have questions regarding the sampling program, please contact our Installation Environmental Program Director at (808) 474-0392 or steven.christiansen@navy.mil.

R. E. HARMEYER CAPT, CEC, U.S. Navy By direction

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## Overview of Testing Results and Corrective Actions for Harbor CDC (Building 623H)

At the Harbor CDC, outlets used for drinking, cooking, and washing were tested. Out of 26 samples collected, seven water outlets initially tested above the screening level of 15 parts per billion (ppb) for lead in drinking water in schools and childcare centers.

The first sampling event took place on January 16, 2020. We received the test results on February 4, 2020 which included seven exceedances. We took those outlets out of service shortly after and conducted follow up sampling on February 6, 2020, April 3, 2020, and June 1, 2020 to verify the results. Summary table of the results from the first and follow-up samples for the seven outlets:

|        |             |              | Follow-up Sample (ppb) |          |              |  |  |  |
|--------|-------------|--------------|------------------------|----------|--------------|--|--|--|
| Outlet | Outlet      | First Sample | First                  |          | Additional   | Comments and                                   |  |  |
| ID#    | Description | (ppb)        | Draw                   | Flush    | Confirmation | Corrective Actions                             |  |  |
| 18     | Toddler     | 69           | 10                     | 1.3      | Not Required | Most likely source of lead was from            |  |  |
|        | Sink        |              |                        |          |              | infrequent use of the sink. Water should be    |  |  |
|        |             |              |                        |          |              | run for 30 sec in the morning.                 |  |  |
| 21     | Toddler     | 19           | 8.8                    | 0.69     | Not Required | Most likely source of lead was from            |  |  |
|        | Sink        |              |                        |          |              | infrequent use of the sink. Water should be    |  |  |
|        |             |              |                        |          |              | run for 30 sec in the morning.                 |  |  |
| 8      | Kitchen     | 56           | 38                     | 4        | 13           | Most likely source of lead was the fixture.    |  |  |
|        | Sink        |              |                        |          |              | Fixture was replaced on 02/28/20 and           |  |  |
|        |             |              |                        |          |              | retested on 04/03/20. The result (15 ppb)      |  |  |
|        |             |              |                        |          |              | was at the screening level. Outlet was taken   |  |  |
|        |             |              |                        |          |              | out of service. Filter was installed and       |  |  |
|        |             |              |                        |          |              | retested on 06/01/20. The result was below     |  |  |
|        |             |              |                        |          |              | the screening level.                           |  |  |
| 9      | Kitchen     | 65           | 28                     | 1.1      | 10           | Most likely source of lead was the fixture.    |  |  |
|        | Sink        |              |                        |          |              | Fixture was replaced on 02/28/20 and           |  |  |
|        |             |              |                        |          |              | retested on 04/03/20. The result (23 ppb)      |  |  |
|        |             |              |                        |          |              | was above the screening level. Outlet was      |  |  |
|        |             |              |                        |          |              | taken out of service. Filter was installed and |  |  |
|        |             |              |                        |          |              | retested 06/01/20. The result was below the    |  |  |
|        |             |              |                        |          |              | screening level.                               |  |  |
| 10     | Kitchen     | 38           | 18                     | 0.68     | 11           | Most likely source of lead was the fixture.    |  |  |
|        | Sink        |              |                        |          |              | Fixture was replaced on 02/28/20 and           |  |  |
|        |             |              |                        |          |              | retested on $04/03/20$ . The result was below  |  |  |
|        |             |              |                        |          |              | the screening level.                           |  |  |
| 11     | Kitchen     | 30           | 13                     | 0.78     | Not Required | Most likely source of lead was from            |  |  |
|        | Sink        |              |                        |          |              | infrequent use of the sink. Water should be    |  |  |
|        |             |              |                        |          |              | run for 30 sec in the morning.                 |  |  |
| 25     | Kitchen     | 31           | 15                     | Not      | 9.5          | Most likely source of lead was the fixture.    |  |  |
|        | Sink        |              |                        | Detected |              | Fixture was replaced on 02/28/20 and           |  |  |
|        |             |              |                        |          |              | retested on 04/03/20. The result was below     |  |  |
|        |             |              |                        |          |              | the screening level.                           |  |  |

A complete summary results table (enclosure 2) is enclosed for your information. The *Building* # and *Room* # indicate the location of the fixture. The *Outlet Map* # corresponds to the location indicated on the floor plan of the CDC (enclosure 3). The *Category* column gives information about whether the outlet is used for drinking water (water fountain), cooking (food preparation), or washing (primarily hand-washing or brushing teeth). The *Outlet Description* column contains additional information to describe the outlet. The next set of columns provide *Initial Lead Results*, and for those locations that exceeded the recommended screening level of 15 ppb the *Follow-up Lead Results*.

EPA sampling protocol requires water to not be used for between 8 and 18 hours prior to first draw sampling. Therefore, *Initial Lead Results* were from first draw samples collected early in the morning before the CDC opened and before any water was used. The *Initial Lead Results* also indicate whether resampling is required.

The Follow-up Lead Results includes columns for First Draw and Flush samples, which help determine the source of lead:

- If the lead concentration of 30 second flush sample resulted in lower than 15 ppb lead, the <u>aerators</u> were the source of lead and the outlet can be used for drinking if the aerators are cleaned on a regular basis.
- If the lead concentration of the resampled first draw (but not the follow up 30 second flush) was greater than 15 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.
- If the lead concentration of the sample following the 30 second flush was greater than 15 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.

The *Comments* column indicates additional information regarding the fixture and actions to remediate the source of lead if detected.

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Enclosure (1)

## LIPA Test Results JBPHH - Harbor CDC (Building # 623H)

Initial Sample Date: 01/16/20, Results Date: 02/06/20

Follow-up Sample Date: 02/04/20, Results Date: 02/23/20

| Building | Room           | Outlet |          | Outlet                  | Initial Lead  | Follow-up Lead Results (ppb) |             |              | Bute. 62/04/20, Results Bute. 62/25/20  |
|----------|----------------|--------|----------|-------------------------|---------------|------------------------------|-------------|--------------|---|
| #        | #              | Map #  | Category | Description             | Results (ppb) | First Draw                   | Flush       | Confirmation | Comments  |
| 623H     | 1              | 1      | Washing  | Toddler Sink            | Not Sampled   | Not Sampled                  | Not Sampled | Not Required | Fixture Broken  |
| 623H     | 1              | 2      | Washing  | Toddler Sink            | 14            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | 1              | 3      | Washing  | Toddler Sink            | 6.9           | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | 2              | 22     | Washing  | Toddler Sink            | 5.2           | Not Sampled                  | Not Sampled | Not Required | Used for teeth brushing   |
| 623H     | 3              | 16     | Washing  | Toddler Sink            | 11            | Not Sampled                  | Not Sampled | Not Required | Used for teeth brushing   |
| 623H     | 4              | 12     | Washing  | Toddler Sink            | 7.1           | Not Sampled                  | Not Sampled | Not Required | Used for teeth brushing   |
| 623H     | 4              | 14     | Washing  | Toddler Sink            | 4.3           | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | 4              | 15     | Washing  | Toddler Sink            | 14            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Bathroom       | 4      | Washing  | Adult Sink              | 11            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Bathroom       | 18     | Washing  | Toddler Sink            | 69            | 10                           | 1.3         | Not Required | Most likely source of lead was from infrequent use of the sink. Water should be run for 30 sec in the morning   |
| 623H     | Bathroom       | 19     | Washing  | Toddler Sink            | 11            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Bathroom       | 20     | Washing  | Toddler Sink            | 13            | Not Sampled                  | Not Sampled | Not Required |   |
| 623Н     | Bathroom       | 21     | Washing  | Toddler Sink            | 19            | 8.8                          | 0.69        | Not Required | Most likely source of lead was from infrequent use of the sink. Water should be run for 30 sec in the morning   |
| 623H     | Custodian Room | 27     | Washing  | Utility Sink            | 13            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Exterior       | 5      | Drinking | Water Fountain - Cooler | 0.92          | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Exterior       | 13     | Drinking | Water Fountain - Cooler | 3.2           | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Exterior       | 17     | Drinking | Water Fountain - Cooler | 12            | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Exterior       | 23     | Drinking | Water Fountain - Cooler | 3.4           | Not Sampled                  | Not Sampled | Not Required |   |
| 623H     | Exterior       | 26     | Washing  | Hose Bib                | 1.3           | Not Sampled                  | Not Sampled | Not Required | Used for waterplay  |
| 623H     | Exterior       | 28     | Washing  | Hose Bib                | 4             | Not Sampled                  | Not Sampled | Not Required | Used for waterplay  |
| 623H     | Exterior       | 29     | Washing  | Hose Bib                | 8.3           | Not Sampled                  | Not Sampled | Not Required | Used for waterplay  |
| 623H     | Kitchen        | 8      | Cooking  | Kitchen Sink            | 56            | 38                           | 4           | 15           | Most likely source of lead was the fixture; Fixture was replaced on 02/28/20 and retested on 04/30/20. The result (15 ppb) was at the screening level. Outlet was taken out of service. |

(EPA Limit is 15 ppb) Enclosure (2)

| Building | g Room Outlet |       |          | Outlet                  |               | Follow-up Lead Results (ppb) |              |              |  |
|----------|---------------|-------|----------|-------------------------|---------------|------------------------------|--------------|--------------|--|
| #        | #             | Map # | Category | Description             | Results (ppb) | First Draw                   | Flush        | Confirmation | Comments   |
| 623Н     | Kitchen       | 9     | Cooking  | Kitchen Sink            | 65            | 28                           | 1.1          | 23           | Most likely source of lead was the fixture; Fixture was replaced on 02/28/20 and retested on 04/30/20.  The result (23 ppb) was at the screening level. Outlet was taken out of service. |
| 623H     | Kitchen       | 10    | Cooking  | Kitchen Sink            | 38            | 18                           | 0.68         | 11           | Most likely source of lead was the fixture. Fixture was replaced on 02/28/20 and retested on 04/30/20. The result was below the screening level.   |
| 623H     | Kitchen       | 11    | Cooking  | Kitchen Sink            | 30            | 13                           | 0.78         | Not Required | Most likely source of lead was from infrequent use of the sink. Water should be run for 30 sec in the morning  |
| 623H     | Kitchen       | 25    | Cooking  | Kitchen Sink            | 31            | 15                           | Not Detected | 9.5          | Most likely source of lead was the fixture. Fixture was replaced on 02/28/20 and retested on 04/30/20. The result was below the screening level.   |
| 623H     | Exterior      | 6     | Drinking | Water Fountain - Cooler | Not Sampled   | Not Sampled                  | Not Sampled  | Not Required | Fixture Removed  |
| 623H     | Exterior      | 7     | Washing  | Adult Sink              | Not Sampled   | Not Sampled                  | Not Sampled  | Not Required | Fixture Removed  |
| 623H     | Exterior      | HB-1  | Washing  | Hose Bib                | Not Sampled   | Not Sampled                  | Not Sampled  | Not Required | Non-Consumptive Use Only   |
| 623H     | Exterior      | HB-2  | Washing  | Hose Bib                | Not Sampled   | Not Sampled                  | Not Sampled  | Not Required | Non-Consumptive Use Only   |
| 623H     | Laundry Room  | US-1  | Washing  | Utility Sink            | Not Sampled   | Not Sampled                  | Not Sampled  | Not Required | Cleaning Only  |

