2016 Consumer Confidence Report
White Beach
Drinking Water System

Commander, Fleet Activities, Okinawa

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Introduction

Commander, Fleet Activities, Okinawa (CFAO) is pleased to provide our customers with this annual Consumer Confidence Report (CCR) for the CFAO Drinking Water System that supports White Beach. CFAO occupied facilities on Kadena Air Base and Military Housing are covered under the Air Force CCR. The web site for accessing the Air Force CCR is listed in the "Additional Sources of Information" on page 2.

This report explains where our water comes from and summarizes the quality of water we received at White Beach in 2016. Our goal is to continue providing safe, dependable and clean drinking water.
The drinking water at CFAO White Beach facilities meets all standards for safe drinking water.

Source of Water

The drinking water for White Beach comes from the following surface water sources: Fukuji Dam, Arakawa Dam, Aha Dam, Fungawa Dam, Benoki Dam, Kanna Dam, Yamashiro Dam, and rivers that are located in the northern area of the Main Island of Okinawa (Figure 1).

Water from these sources is filtered and disinfected at the Ishikawa Water Treatment Plant (WTP). The Ishikawa WTP, then, supplies the treated water to various municipalities. We purchase our drinking water from Uruma City for White Beach.

Water Distribution Systems

The Naval Facilities Engineering Command Far East Public Works Department Okinawa (PWD) operates the water distribution system servicing White Beach. The purchased water is temporarily stored in a bulk water tank before being distributed to the facilities.

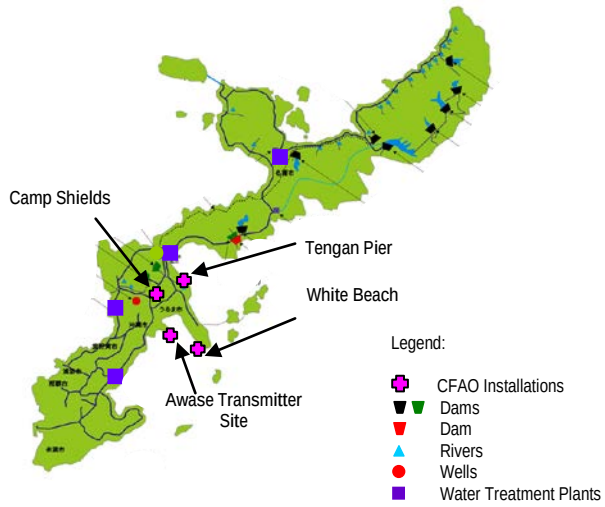

Figure 1 Water Sources and Water Facilities on Main Island of Okinawa

Water Quality

Our drinking water is required to meet the water quality standards established in the Japan Environmental Governing Standards (JEGS) and the U.S. National Primary Drinking Water Regulations (NPDWR). The JEGS are Department of Defense (DoD) governing standards intended to ensure DoD activities and installations in Japan protect human health and the environment and to ensure safe drinking water is provided to all DoD personnel. The U.S. Navy adopted the NPDWR in 2013 for the drinking water provided at the overseas U.S. Navy installations to meet U.S. drinking water quality standards. To continually ensure that our water is safe to drink, the JEGS and the NPDWR require us to regularly monitor and test our water for contaminants.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. US Environmental Protection Agency (EPA) and Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 or visiting the EPA website at https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information.

Possible Source of Contaminants

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals. It can also pick up other contaminants resulting from the presence of animals or human activities. Drinking water, including bottled water, may reasonably be expected to contain trace amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline at 1-800-426-4791 or visiting the EPA website at https://www.epa.gov/dwstandardsregulations.

Potential Contaminants

Lead

Elevated levels of lead can cause adverse health effects, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and building plumbing. For low use taps or when water has been sitting in service lines for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using the water for drinking or cooking. Information on lead in drinking water is available at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

Nitrate/Nitrite

Nitrates are naturally present in soil, water, and food. They are used primarily to make fertilizer. Nitrates themselves are relatively nontoxic. However, when swallowed, they are converted to nitrites that can react with hemoglobin in the blood, creating methemoglobin. This methemoglobin cannot transport oxygen, causing shortness of breath and blue baby syndrome. Information on Nitrate in drinking water is available at https://safewater.zendesk.com/hc/en-us/sections/202346267-Nitrate.

Arsenic

Arsenic is odorless and tasteless. It enters drinking water supplies from natural deposits in the earth or from agricultural and industrial practices. People who over a period of many years drink water contaminated with arsenic in excess of the drinking water standards could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Information on Arsenic in drinking water is available at https://safewater.zendesk.com/hc/en-us/sections/202366558-Arsenic.

Drinking Water Monitoring

We use Japanese and EPA approved laboratory methods to analyze our drinking water. We monitor our drinking water for the following contaminants at frequencies prescribed by the JEGS and the NPDWR.

Contaminants	Frequency
pH and Chlorine Residual	Daily
Total Coliform	Monthly
Disinfection Byproducts (Bromate)	Monthly through July 2016, then Quarterly per regulations
Inorganic Chemicals (e.g. Nitrate/Nitrite & Arsenic), Organic Chemicals and Disinfection Byproducts (Total Trihalomethanes & Haloacetic Acids 5), Lead and Copper	Annually
PCBs, Herbicides and Pesticides	Once every 3 years
Radionuclides	Once every 3 years
Asbestos	Once every 9 years

The table on page 3 lists the results of the analysis performed in 2016. Only those contaminants detected are listed in the table.

Additional Sources of Information

USEPA:
https://www.epa.gov/ground-water-and-drinking-water or the Safe Drinking Water Hotline (1-800-426-4791).

Centers for Disease Control and Prevention:
http://www.cdc.gov/healthywater/drinking/

Kadena Air Force CCR:
http://www.kadena.af.mil/Library/Consumer-Confidence-Reports/

The Okinawa Prefectural Enterprise Bureau provides water monitoring results for the Water Treatment Plants (Only in Japanese):
http://www.eb.pref.okinawa.jp/water/80/181

Frequently Asked Questions

My water doesn't taste, smell or look good. What's wrong with it?
Even when water meets standards, it still may have an objectionable taste, smell or appearance. These are aesthetic characteristics that do not pose health risks. Cloudiness is typically caused by air bubbles. A chlorine taste can be improved by letting the water stand exposed to air. Rusty colored water and metallic tastes are due to iron in the water. They are not a health risk and can be improved by running the tap until the water color clears. If you wish to improve the taste, smell or appearance of your water, you can also install a home water filter. Please keep in mind that the filters require regular maintenance and replacement.

Will using a home water filter make the water safer or healthier?
Most filters improve the taste, smell and appearance of water, but they do not necessarily make the water safer or healthier. Please keep in mind that filters require regular maintenance and replacement. If maintenance of water filters is ignored, then water quality problems may occur.

What is a precautionary Boil Water Advisory?
If a problem is detected in the distribution system such as a drop in water pressure or a break in main water line, PWD puts out a precautionary Boil Water Advisory. It advises consumers that the water must be boiled to kill bacteria potentially present in the water before consumption. After the problem is resolved and water quality verified, PWD lifts the advisory.

WHITE BEACH – DRINKING WATER CONTAMINANTS DETECTED IN 2016

Contaminants	Unit of Measurement	Detected Level		Standard (AL/ MCL/ MRDL)	Violation	Possible Source of Contamination
		High	Low		Yes / No	
INORGANIC CONTAMINANTS						
Barium		**0.0045**	-	2.0	No	Erosion of natural deposits
Sodium	mg/L	**19**	-	200	No	Erosion of natural deposits
Lead	mg/L	**0.035**	**ND**	0.015 [1]	Yes [2]	Corrosion of plumbing systems Erosion of natural deposits
Copper	mg/L	**0.17**	**0.0052**	1.3 [1]	No	Corrosion of plumbing systems Erosion of natural deposits
DISINFECTANTS & DISINFECTION BYPRODUCTS						
Residual Chlorine	mg/L	**0.40**	**0.11**	4.0 [3]	No	Disinfectant
Bromate	mg/L	**0.001**	-	0.01	No	By-product of drinking water disinfection
Total Trihalomethanes	mg/L	**0.062**	-	0.08	No	By-product of chlorination
Halo Acetic Acids (HAA5)	mg/L	**0.0072**	-	0.06	No	By-product of chlorination

Abbreviations and Definitions:
AL (Action Level): The concentration of a contaminant in water that establishes the appropriate treatment for a water system.
MCL (Maximum Contaminant Level): The highest level of a contaminant allowed in drinking water.
MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment measured at the consumer's tap, which may not be exceeded without the unacceptable possibility of adverse health effects.
mg/L: milligrams per liter.
ND: Not detected

Notes:
[1] Lead and Copper - Action Level.
[2] The detected level shown is for Bldg. 1705. The violation is being corrected by replacing building plumbing. An additional exceedance was noted at Bldg. 1096, however the building is undergoing demolition and the fixture is out of service.
[3] Residual Chlorine - Maximum Residual Disinfectant Level.

CFAO monitors for many contaminants and only those detected by laboratory analysis or at sampling locations are listed above.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

White Beach water system found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

The water sample test results received showed lead levels in water above the limit, or "action level" of 0.015 milligrams of lead per liter of water (mg/L). The buildings exceeding the action level were Buildings 1096 women's restroom sink (0.027 mg/L), and 1705 kitchen sink (0.035 mg/L).

As our customers, you have a right to know what happened, what you should do, and what we are going to do to correct this situation.

Health Effects of Lead

This is not an emergency. If it had been, you would have been notified immediately. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Sources of Lead

Lead is a common metal found in the environment. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil. Drinking water is also a possible source of lead exposure. Most sources of drinking water have no lead or very low levels of lead. Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include pipes, lead solder, as well as valves and other components made of brass.

Steps you can take to reduce your exposure to lead in drinking water:

1. Run your water to flush out lead. Run water for about 30 seconds to flush lead from interior plumbing or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it has not been used for several hours. If the water has not been used for extended period of time (e.g. several days or weeks), run it for a longer period of time.
2. Use cold water for cooking and preparing baby formula. Lead dissolves more easily into hot water.
3. Do not boil water to remove lead. Boiling water will not reduce lead.
4. Consider alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or visit http://www.nsf.org for information on performance standards for water filters.
5. If you have specific health questions or concerns, contact your family doctor or pediatrician who can perform blood tests for lead.
6. Call us at DSN 622-1314 to find out how to get your water tested for lead.
7. Brass faucets, fittings, and valves, including those advertised as "lead-free", may contribute lead to drinking water. The law currently allows end-use fixtures, such as faucets, with up to a weighted average of 0.25% lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures. Visit the National Sanitation Foundation Web site at http://www.nsf.org to learn more about lead-free plumbing fixtures.

What is being done?

Notices were posted at all locations (fixtures) which exceeded the action level.

Building 1096 has been demolished. The tested sink is no longer installed. At Building 1705, plumbing fixtures which were identified as possible contributors to the exceedance will be replaced by 21 July 2017. After the replacement, water will be tested to confirm the lead level.

Where can I find additional information on lead?

For more information, you may call 646-WELL (9355) or 646-9599 (Preventive Medicine Department at the U.S. Naval Hospital Okinawa). For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water or contact your health care provider.

What should I do?

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information on this report or water quality, please contact the Drinking Water Manager, NAVFAC FE PWD Okinawa Environmental Division at 622-1314.