



Consumer Confidence Report (CCR)



2015 Water Quality Report Kadena Air Base Okinawa, Japan

Introduction

This is an annual report on the quality of tap water delivered to Kadena Air Base, Okinawa, Japan. The purpose of this report is to provide you, our customers, with general information about the quality of water you drink.

What is a Consumer Confidence Report?

In 1996, Congress amended the Safe Drinking Water Act to require that all community water systems in the United States deliver to their customers a brief annual water quality report called a Consumer Confidence Report (CCR). Although this law does not apply overseas and the Japan Environmental Governing Standards (JEGS) do not specifically require annual water quality reports to be developed for customers, it is Kadena Air Base policy to prepare annual water quality reports modeled after the Safe Drinking Water Act CCR.

Is my Water Safe?

Our water is safe to drink. No one is interested more in the high quality of our drinking water than the 18th Medical Group, Bioenvironmental Engineering personnel. We are committed to providing safe drinking water to you at all times. Our routine monitoring program, which follows water quality standards and monitoring requirements set forth in the JEGS, enables us to maintain optimal water quality on Kadena Air Base.

Last year, as in years past, your drinking water met all health-based water quality standards contained in the JEGS.

Do I need to take Special Precautions?

Our water is safe to drink. Our monitoring program allows us to prevent potential health impacts that might occur if we drank water containing contaminants over long periods of time above the standards set forth in the JEGS. Some people may be more vulnerable to contaminants in general than the general population. For example, immuno-compromised persons such as persons 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 contaminants. These people should seek medical advice about drinking water from their health care providers if they have questions.

Are Contaminants in my Drinking Water?

All drinking water, including bottled water, may reasonably be expected to contain small amounts of impurities dissolved in the water. The presence of impurities in the water does not necessarily indicate that the water poses a health risk. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, naturally-occurring radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or

farming. Pesticides and herbicides may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. In Japan, the Government of Japan (GOJ) and the US Forces, Japan, also regulate the quality of drinking water. Our monitoring program allows us to prevent potential health impacts that may occur if we drink water containing contaminants over long periods of time above the standards set forth in the JEGS.

Kadena Air Base Water System Information

The Kadena Air Base drinking water system is operated and maintained by the 18th Civil Engineer Squadron (CES). The water is distributed from the Chatan water treatment plant to Kadena. The water supplied to this treatment plant is a combination of surface waters (reservoirs and rivers), groundwater wells, and a desalination plant fed by the East China Sea.

Monitoring of Your Drinking Water

The 18th Aerospace Medicine Squadron, Bioenvironmental Engineering Flight (BEF), is responsible for drinking water monitoring of AF-owned or managed installations, including military family housing (MFH) on Okinawa. The BEF is committed to providing safe drinking water to you at all times. We use only EPA and GOJ approved laboratory methods to analyze your drinking water. Trained personnel collect water samples from the distribution system and residents' taps. Samples are then shipped to an accredited laboratory where a full spectrum of water quality analyses is performed. BEF personnel collected routine monitoring samples in 2015, in which no results were at a level higher than the JEGS Maximum Contaminant Level (MCL). Results from these sampling are located on the next page.



For More Information Contact:

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ext. 634-4752

2015 Water Quality Table

TABLE 1: DETECTED PARAMETERS

This table summarizes the monitoring results for all detected parameters

INORGANIC CHEMICALS	VIOLATION? YES/NO	UNITS	HIGHEST LEVEL DETECTED	MCL	AL	LIKELY SOURCE OF CONTAMINATION
Sodium	No	mg/L	27	200	NA	Erosion of natural deposits
Barium	No	mg/L	0.0068	2.0		Erosion of natural deposits
Total Nitrate/Nitrite	No	mg/L	0.6	10		Runoff from fertilizer use; leaching septic tanks/sewage; erosion of natural deposits
RADIONUCLIDES	VIOLATION? YES/NO	UNITS	HIGHEST LEVEL DETECTED	MCL	AL	LIKELY SOURCE OF CONTAMINATION
Uranium (2014)	No	ug/L	<1	30	NA	Erosion of natural deposits
Gross Alpha (2014)	No	pCi/L	1.2 ± 0.3	15		Erosion of natural deposits
Combined Radium (2014)	No	pCi/L	1.38 ± 0.74	5		Erosion of natural deposits
MICROBIAL CONTAMINANTS	VIOLATION? YES/NO	UNITS	HIGHEST LEVEL DETECTED	MCL	AL	LIKELY SOURCE OF CONTAMINATION
Total Coliform	Yes See Table 3	N/A	0	>1 positive per month	NA	Naturally present in the environment
RESIDUAL DISINFECTANTS	VIOLATION? YES/NO	UNITS	HIGHEST LEVEL DETECTED	MCL	AL	LIKELY SOURCE OF CONTAMINATION
Free Chlorine	N/A	ppm	2.07	N/A	NA	Water additive used to control microbes
LEAD AND COPPER	VIOLATION? YES/NO	UNITS	90 th Percentile Value	Sites Exceeding AL/No. of Sites	AL ¹	LIKELY SOURCE OF CONTAMINATION
Lead	No	mg/L	0.03 0.02% of total samples above 0.015	1/48	0.015	Corrosion from household plumbing systems
Copper	No	mg/L	0.21 0% of total samples above 1.3	0/48	1.3	Erosion of natural deposits
DISINFECTANT/DISINFECTI ON BY-PRODUCTS	VIOLATION? YES/NO	UNITS	Annual Average	MCL ²	AL	LIKELY SOURCE OF CONTAMINATION
Total Trihalomethanes	No	mg/L	0.0402	0.08	NA	By-products of drinking water chlorination
Halo-Acetic Acids	No	mg/L	0.0072	0.06		By-products of drinking water chlorination

Abbreviations/Definitions Used:

CY: calendar year; **mg/L:** milligrams per liter; **ug/L:** micrograms per liter; **pCi/L:** pico curies per liter; **ppm:** parts per million; **NA:** not applicable; **MCL:** Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water; **AL:** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Notes:

1. The AL for Lead and Copper is based on a 90th percentile value – i.e., no more than 10% of all sampled taps.
2. The MCL for Total Trihalomethanes and Haloacetic Acids is based on an annual average of quarterly samples.

TABLE 2: NOT-DETECTED PARAMETERS

The following parameters were monitored for, but not detected in any sample in 2015

INORGANIC CHEMICALS
Asbestos, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Nickel, Selenium, Cyanide, Fluoride, Thallium, Mercury
PESTICIDES/PCBS
Endothall, Diquat, Chlordane, Toxaphene, 2,4-D, Dalapon, Dinoseb, Pentachlorophenol, Picloram, 2,4,5-Tp, Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Carbofuran, Oxamyl, Glyphosate, 2,3,7,8-Tetrachlorodibenzo-P-Dioxin, 1,2-Dibromo-3-Chloropropane, Pcb's (As Decachlorobiphenyls), Alachlor, Atrazine, Benzo[A]Pyrene, Di (2-Ethylhexyl) Adipate, Di (2-Ethylhexyl) Phthalate, Endrin, Ethylene Dibromide (Edb), Heptachlor, Heptachlorepoxyde, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Simazine
VOLATILE ORGANIC CHEMICALS
Benzene, Carbon Tetrachloride, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Cis-1,2-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Styrene, Tetrachloroethylene, Toluene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Xylenes (Total), Monochlorobenzene, Para-Dichlorobenzene

TABLE 3: MONITORING VIOLATIONS

The Kadena Air Base drinking water system violated drinking water monitoring requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we are doing to correct these situations. We are required to monitor your drinking water for specific contaminants on a regular basis. However, during March 2015 we did not complete all monitoring for total coliform and therefore there was not an analysis of our drinking water with regard to coliform during that time. During March, only 19 of the 25 required total coliform samples were collected. The BEF takes pride in their record of service of providing quality drinking water to Kadena. This issue was corrected and all required monthly total coliform sampling was conducted from April to December 2015.

Frequently Asked Questions

Why does the water sometimes look rusty?

Rusty or reddish tinted water may occur because of a sudden change in pressure due to flushing of a fire hydrant, etc. Iron causes the discoloration and is not a health risk. The normal flow of water will usually clear the mains within two hours or less. Check your water by flushing a commode bowl three times every 15 to 20 minutes. If you live on or near the end of a long distribution line, additional flushing may be required. Galvanized iron pipes or fittings within a home or building may also cause discolored water. Running the water will clear the piping system. If the hot water is rusty, the water heater may need to be flushed.

What is a Boil Water Notice?

Any time a drop in pressure occurs from a water main break or system maintenance, the BEF issues a Boil Water Notice and immediate sampling requirements go into effect. Boil Water Notices in these cases are precautionary and do NOT necessarily mean that contamination has been detected or is suspected. In other cases, if coliform is detected as part of our routine sampling program, a Boil Water notice will also go into effect as a precaution while corrective measures are taken. In this case, resampling continues until the corrective measures are completed.

Is it okay to drink from a garden hose?

The water that supplies the water hose is safe but a garden hose is treated with special chemicals and can contain bacteria and other substances.

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. If you use filters, please keep in mind that they require regular maintenance and replacement or the filter itself can impact water quality.

What can I do to improve the quality of my drinking water?

Running the cold water tap for 30 seconds prior to use helps to flush out small amounts of metals that may leach into water that has been sitting in metal pipes overnight. Water used for consumption should always come from the cold water tap. Hot water has more potential to leach metals into the water.

How will I know if my water is not safe to drink?

Your water supplier must notify you if your water does not meet standards or if there is a waterborne disease emergency. The notice will describe any precautions you need to take, such as boiling your water.

I don't like the taste/smell/appearance of my tap water? What's wrong with it?

Even when water meets standards, you may still object to its taste, smell, or appearance. Taste, smell and appearance are also known as aesthetic characteristics and do not pose adverse health effects. Common complaints about water aesthetics include: temporary cloudiness (typically caused by air bubbles) or chlorine taste (which can be improved by letting the water stand exposed to the air).

Does the water system have a lead problem?

The Japan Environmental Governing Standards (JEGS) states 90% of samples must be below the action level. The water system met that criterion in 2015. The water system will continue to be sampled for lead, and the next samples will be taken between July and August 2016. Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water for drinking or cooking.

Is a Japanese translation of the CCR available?

All sections of the CCR are written in English. Please contact the BEF at 634-4752 for Japanese translation.

第18航空医療中隊、生物環境工学部（BEF）は、沖縄にある空軍所有の施設及びその他の関連施設、更には基地内住宅の水道飲料水のモニタリングを空軍規則により行なっています。BEFはモニタリングの水道水分析結果をCCRで利用者及び関係者に報告しています。

CCRの全てが英文訳の文書です。日本語訳希望者はBEFまでご連絡下さい。基地内：634-4752 基地外から：098-938-1111 ext. 634-4725

Where can I go for additional information?

This CCR will be posted on the Kadena AB homepage at <https://www.kadena.af.mil>. Select About Us tab, choose Consumer Confidence Reports.

Customers can address any drinking water concerns during the monthly Water Quality Working Group meeting. Please contact the number below for more information or to make an appointment to attend the meeting.



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