



Consumer Confidence Report (CCR)

2011 Water Quality Report Kadena and Munitions Storage Area (Kadena AB), Okinawa, Japan

Introduction

This is an annual report on the quality of tap water delivered to Kadena AB. This report's sole purpose is to increase consumer knowledge of drinking water quality, sources, susceptibility, treatment, and drinking water supply management. It also increases awareness of consumers to potential health risks, so they may make informed decisions to reduce those risks, including taking steps toward protecting their water supply.

What is a Consumer Confidence Report?

In 1996, Congress amended the Safe Drinking Water Act. It added a provision requiring that all community water systems deliver to their customers a brief annual water quality report. The Japan Environmental Governing Standard (JEGS) does not have a requirement for generation of a CCR. However, Air Force Instruction 48-144, *Safe Drinking Water Surveillance Program*, provides guidance for overseas installations in preparing a water quality report that may be modeled after a CCR.

Is my water safe?

Absolutely! No one is concerned more about the potability of your water than 18th Civil Engineering Squadron Utilities and Bioenvironmental Engineering personnel. These offices perform routine water testing and maintain the water system based on JEGS requirements.

How can I reduce lead in drinking water at home?

In order to reduce lead and copper in drinking water, you are encouraged to flush your pipes before use. Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water five to thirty seconds.

Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

Do I need to take special precautions?

Some personnel may be more vulnerable to contaminants in drinking water than the general population. 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 advice about drinking water from their health care provider. The U.S. Environmental Protection Agency (EPA) and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Water Hotline at 1-800-426-4791.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that 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, radioactive material, and can pick up substances resulting from the presence of animal or 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 storm water 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 storm water 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 storm water runoff, or septic systems. Radioactive contaminants can be naturally occurring or can be the result of oil and gas production or mining activities. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. In Japan, the Government of Japan and the US Forces, Japan, also regulate the quality of drinking water.

Kadena AB Water System Information

The Kadena AB water is operated and maintained by the 18th Civil Engineer Squadron. The water is pumped from the Ishikawa and Chatan water treatment plants. The water supply to these treatment plants is a combination of surface rivers and reservoirs, a desalination plant fed by the East China Sea, and ground water wells located on Kadena AB.

Monitoring of Your Drinking Water

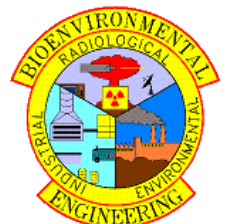
We use only EPA-approved laboratory methods to analyze your drinking water. Trained personnel take water samples from the distribution system and residents' taps. Samples are then shipped to an accredited laboratory where a full spectrum of water quality analyses is performed. The 18th Aerospace Medicine Squadron, Bioenvironmental Engineering Flight, collected 2000 samples in 2011. One analyte was detected at a level higher than the JEGS MCL. The 2011 Kadena AB water sampling results are located on the next page.

THIS REPORT IS AVAILABLE ON THE WEB:

<http://www.kadena.af.mil>

For More Information Contact:

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2011 Kadena AB Water Quality Table

Inorganic Contaminants	Unit of Measurement	MCL	AL	Highest Level Detected	Violation	Possible sources of contamination
Lead (CY2011)	mg/L	≥10% of total samples above AL	0.015	0.219	No	Corrosion from household plumbing systems
Three out of 120 samples were found to have lead levels in excess of the Action Level of 0.015 mg/L. The JEGS states 90% of samples must be below the action level.						
Copper (CY2011)	mg/L	≥10% of total samples above AL	1.3	1.24	No	Erosion of natural deposits
Zero out of 120 samples were found to have copper levels in excess of the Action Level of 1.3 mg/L. The JEGS states 90% of samples must be below the action level.						
Total Nitrate/Nitrites	mg/L	10	N/A	0.9	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Microbiological Contaminants	Unit of Measurement	MCL	AL	Highest Level Detected	Violation	Possible sources of contamination
Total Coliform	# of Positives / month or Repeat positives	> 1 repeat positive	N/A	2	Yes	Naturally present in the environment
Residual Disinfectants	Unit of Measurement	MCL	AL	Highest Level Detected	Violation	Possible sources of contamination
Free Chlorine	ppm	N/A	N/A	2.2	No	Water additive used to control microbes
Disinfection By-products	Unit of Measurement	MCL	AL	Highest Level Detected	Violation	Possible sources of contamination
Total Trihalomethanes	mg/L	0.08	N/A	0.056	No	By-product of drinking water chlorination
Halo-Acetic Acids (HAA5)	mg/L	0.06	N/A	0.008	No	By-product of drinking water chlorination

2011 Munitions Storage Area Water Quality Table

Microbiological Contaminants	Unit of Measurement	MCL	Highest Level Detected	Violation	Possible sources of contamination
Total Coliform	# of Positives / month or Repeat Positives	> 1 positive	0	No	Naturally present in the environment
Residual Disinfectants	Unit of Measurement	MCL	Highest Level Detected	Violation	Possible sources of contamination
Free Chlorine	ppm	N/A	2.2	No	Water additive used to control microbes
Disinfection By-products	Unit of Measurement	MCL	Highest Level Detected	Violation	Possible sources of contamination
Total Trihalomethanes	mg/L	0.08	0.031	No	By-product of drinking water chlorination
Halo-Acetic Acids (HAA5)	mg/L	0.06	0.008	No	By-product of drinking water chlorination

Abbreviations Used:

N/A: not applicable
 mg/L: milligrams per liter
 ppm: parts per million
 CY: calendar year

Definitions Used:

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.

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 improper flushing of a fire hydrant, etc. Iron causes the discoloration: it 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, main 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 Precautionary Boil Advisory?

If a problem is detected in the system, such as a drop in pressure, a water main break, or a routine positive coliform sample, Bioenvironmental Engineering puts out a Precautionary Boil Advisory and immediate testing requirements go into effect. Boil Advisories are precautionary and do NOT necessarily mean that contamination has been detected. The notice will describe any precautions you need to take such as boiling your water to kill any potential bacteria. Retesting continues until the system can reliably demonstrate that it is free of problems.

Is it okay to drink from a garden hose?

The water is safe but a garden hose is treated with special chemicals that make it flexible. Those chemicals are not good for you and neither are the bacteria that may be growing inside the hose.

Will using a home water filter make the water safer or healthier?

Most filters improve the taste, smell and appearance of water, but they don't necessarily make the water safer or healthier. Please keep in mind that filters require regular maintenance and replacement, if ignored, water quality problems may occur.

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 metals that may leach into the water that has been sitting in the 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 isn't safe to drink?

Your water supplier must notify you by newspaper, mail, radio, TV, or a hand-delivered notice if your water doesn't 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.

Doesn't the Kadena AB water system have a lead problem?

In 2011, the Kadena AB water system met the criterion for the JEGS which states that 90% of samples must be below the 0.015 mg/L action level. The water system will be evaluated annually in accordance with the JEGS Lead and Copper Monitoring Requirements. The next samples will be taken between July and September 2012.

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).

What is backflow and how can I prevent it?

It's just what it sounds like: the water is flowing in the opposite direction from its normal flow. With the direction of the flow reversed, due to a change in pressure, backflow can allow contaminants to be pulled into the drinking water. The following tips may help to reduce the potential for backflow:

- Don't submerge hoses in buckets, pools, tubs, or sinks.
- Don't attach chemical sprayers to your garden hose without first installing a backflow prevention device such as a vacuum breaker on the spigot. This is an inexpensive device that can be purchased at any plumbing or hardware store and installation is as easy as attaching your garden hose to a spigot. The chemicals used on your lawn can be fatal if ingested.