



DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

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Team Kadena,

Kadena Air Base is committed to ensuring all men, women, and children who live or work on Kadena Air Base and Military Family Housing in Okinawa are protected from environmental contaminants and receive safe drinking water. A recent news release by the Okinawa Prefectural Enterprise Bureau (OPEB) reported sample results for perfluorinated compounds (PFCs) in streams and groundwater wells on and adjacent to Kadena Air Base. Be assured that your drinking water is safe.

PFCs, specifically perfluorooctane sulfonate (PFOS), were sampled in the streams, untreated groundwater, and at the Chatan Water Treatment Plant following treatment. OPEB sample results indicated that PFOS levels in the streams and groundwater were at higher levels than other areas of Okinawa. However, their sampling also indicated that the treatment techniques at the Chatan Water Treatment Plant adequately remove these compounds. PFOS levels in treated drinking water were well below the US Environmental Protection Agency (EPA) Provisional Health Advisory level of 200 nanograms per liter.

PFCs are a family of fluorine-containing chemicals with unique properties that make materials heat-, stain-, and stick-resistant. They are used to repel oil and water in everyday items such as clothing, carpeting, furniture, and food packaging. In fact, they were used in fast food wrappers as recently as 2007. PFCs are also found in aqueous film forming foam (AFFF), a type of firefighting foam that has been used by industry and the Air Force since 1970 to specifically fight petroleum fires.

PFCs are considered emerging contaminants because the science is evolving, and there is currently uncertainty about the effect they have on human health. Consequently, PFCs do not have a cleanup standard, but the EPA established a Provisional Health Advisory level of 200 nanograms per liter in 2009. Provisional Health Advisories reflect reasonable, health-based hazard concentrations above which action should be taken to reduce exposure to unregulated contaminants in drinking water. PFOS levels in treated drinking water from the Chatan Water Treatment Plant, which supplies Kadena Air Base and Military Family Housing on Okinawa, averages 30 nanograms per liter, and the maximum result was 80 nanograms per liter, well below the Provisional Health Advisory level of 200 nanograms per liter.

The OPEB has taken proactive steps to limit PFCs in the drinking water and address community concerns. The Chatan Water Treatment Plant uses activated carbon treatment, which is capable of removing PFCs. The Chatan Water Treatment Plant is also limiting water intake from areas of the river with known elevated levels of PFCs. OPEB and Kadena Air Base experts agree that the water supplied by the Chatan Water Treatment Plant is safe to drink. The base continues to comply with current Japanese Environmental Governing Standards, which are equivalent to the US Safe Drinking Water Act that is enforced by the EPA.

The 18th Aerospace Medicine Squadron's Bioenvironmental Engineering Flight and the 18th Civil Engineer Group are fully engaged with the OPEB through the Okinawa Defense Bureau and are awaiting updates to EPA regulations concerning PFCs. We will keep the public informed as more information becomes available.

For additional information on PFCs, please visit the US EPA and USAF Civil Engineer Center links below.

US EPA Emerging Contaminant Fact Sheet:

http://www.epa.gov/sites/production/files/2014-04/documents/factsheet_contaminant_pfos_pfoa_march2014.pdf

USAF Civil Engineer Center information on Perfluorinated Compounds:

<http://www.afcec.af.mil/environment/perfluorinatedcompounds/index.asp>

These documents and further updates will be posted on the Consumer Confidence Report link to the Kadena Home page at: <http://www.kadena.af.mil/library/communitynotes.asp>.