

NAVAL STATION ROTA SPAIN

DRINKING WATER CONSUMER CONFIDENCE REPORT

30 June 2014

This Consumer Confidence Report is prepared in accordance with the Spain Final Governing Standards, CNIC Instructions 5090.1 and 5090.3, and COMNAVREGEUR Instruction 11330.1 (30 July 2007)



Answers to Frequently Asked Questions about Drinking Water

Is my water safe?

The drinking water system at Naval Station (NAVSTA) Rota fully complies with all requirements prescribed by DOD's Final Governing Standards (FGS) which are derived from U.S. Environmental Protection Agency (EPA) and Spanish drinking water standards. The NAVSTA Rota Public Works Department (PWD) and Preventive Medicine are able to report that our system has maintained the highest standards for drinking water quality. We believe this CCR presents valuable information and supports the Navy's commitment by providing safe drinking water to service members and their families. This Consumer Confidence Report (CCR) is required by a COMNAVREGEUR INSTRUCTION 11330.1 (30 July 2007)

Where does my water come from and how is it treated?

Naval Station Rota purchases treated water from *Agencia Andaluza del Agua*, the regional Spanish water purveyor. Source water comes from the *Los Hurones* and *Guadalcaçin* reservoirs and is conveyed to the *Cuartillos* water treatment plant where contaminants and suspended solids are removed through sedimentation, sand filtration and disinfection with chlorine. The water then flows by gravity to the *San Cristóbal* ground storage facilities. NAVSTA Rota maintains drinking water storage capacity through reservoir tanks in our drinking water distribution system and also has long water distribution lines. To ensure disinfection is sustained throughout the extra storage and distribution, NS Rota performs additional chlorination. Filtration is accomplished by using granular activated carbon (GAC) filters.

Source water assessment and availability

In March 2012, the United States Navy contractor AH Environmental Consultants completed a comprehensive Sanitary Survey of the NAVSTA Rota drinking water system. This survey evaluated adequacy of the drinking water source, facilities, equipment, operations and maintenance for producing and distributing safe drinking water.

Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, microbial contaminants, inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants. In order to ensure that tap water is safe to drink, 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. More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (800-426-4791).

Additional Information on Lead

If present, 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. NAVFAC Rota Public Works is responsible for providing high-quality drinking water at NAVSTA Rota and has direct control over the materials used in plumbing components on the installation. This ensures that no lead service lines or components are used on the drinking water system. As a general safety practice, whenever - and wherever - you plan to use tap water for drinking or cooking, you can minimize the potential for lead exposure by flushing the tap for 30 seconds to 2 minutes prior to use. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at:

<http://www.epa.gov/safewater/lead>

Do I need to take special precautions?

Some people 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 infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are also available from the Safe Water Drinking website, www.epa.gov/safewater/sdwa."

**What Commands and Departments are involved in providing safe drinking water?
What are their responsibilities?**

COMMANDS/DEPARTMENTS	RESPONSIBILITIES
NAVFAC Rota PW-Environmental Division	<ul style="list-style-type: none"> Overall compliance with FGS (includes EPA and Spain Drinking Water Standards) Coordination of drinking water sampling and laboratory analysis Recordkeeping Source water surveys, master plans, sanitary surveys, and laboratory contract services Consumer Confidence Reports preparation Coordinate with UEM to update the master plans
NAVFAC Rota PW- Production Division. UEM Branch	<ul style="list-style-type: none"> Operation and maintenance of drinking water treatment and distribution systems including cleaning of tanks, system disinfection, flushing, and backflow prevention Laboratory to take and analyze DW samples for operational and FGS requirements
Public Health Services. Naval Hospital Rota, Spain (Cognizant Medical Authority)	<ul style="list-style-type: none"> Certification of base drinking water systems as potable Bacteriological monitoring Health effects advice and implementation of protective measures associated with any instances of non-compliance
NAVFAC Rota PW- Engineering & ACQ Division	<ul style="list-style-type: none"> DW maps updates, and stored. DW system lines modification and replacement projects. System construction/upgrades
NAVSTA Rota Public Affairs Office	<ul style="list-style-type: none"> Public notification of any non-compliance issues associated with on-base drinking water systems. Public notification covers potential adverse health effects/risks, corrective actions, alternative water supplies and protective measures Public notification of any non-compliance issues associated with off-base systems in the surrounding community which may affect station personnel Community Outreach. Publication of Consumer Confidence Reports
NAVSTA Rota Housing Office	<ul style="list-style-type: none"> Coordination of drinking water issues relating to base housing

NAVSTA Rota Drinking Water Monitoring

Our water system uses approved laboratory methods, *EPA* and *European Standard Methods*, to analyze your drinking water. Water samples are taken throughout the system and then analyzed

by the accredited Public Works laboratory and U.S Army Public Health Command (USAPHC); an accredited laboratory in Germany.

For additional information regarding this report, please contact the Public Affair Office (PAO), LT JG David Carter at 727-1680, David.Carter@eu.navy.mil

Water System Analytic Groups and Monitoring Frequency

Analyte / Contaminant Group	Monitoring Frequency	Current Sample	Next Sample
Microbiological	10 samples per month	2013	2014
Trihalomethanes	Once a year	2013	2014
Lead and Copper	Once every 3 years	2011	2014
Other Inorganic Contaminants: Sodium, Alkalinity, Calcium, Corrodibility Total hardness, pH, Temperature, Fluoride	Once, Daily, Monthly	2013	2014
Pesticides and PCBs	Two/year every three years	2012	2015
Volatile Organic Chemicals (VOCs)	Every 3 years	2013	2016
Metals and Cyanide	Once a year	2013	2014
Radionuclide	4 quarterly samples every 4 years	2013	2017
Asbestos	Once every 9 years	2008	2017
Disinfectant Residual	Daily	2013	2014
Nitrate and Nitrite	Monthly	2013	2014

Water Quality Data Tables

The following tables provide detected contaminants in NAVSTA Rota drinking water from previous years of monitoring. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk.

Contaminants	MCL, TT, or MRDL	Your Water	Range		Sample Date	Violation	Typical Source
			Low	High			
Chlorine (as Cl ₂) (ppm)	4	0.53	0.21	1.54	2013	No	Water additive used to control microbes.
TTHMs -Total Trihalomethanes (ppb)	100*	38	<0.5	66	2013	No	By-product of drinking water disinfection. *New limit applicable to 2014 CCR will be 80µg/L
Total Coliform (positive samples/month)	0	0	N/A	N/A	2013	No	Naturally present in the environment. Used as an indicator that other, potentially-harmful, bacteria may be present.
Dalapon	0.2	0.00056	0.0004	0.0007	2013	No	Runoff from herbicide used on rights of way
Barium (ppm)	2	0.063	0.063	0.063	2013	No	Discharge of drilling wastes; Erosion of natural deposits
Fluoride (ppm)	1.2	0.14	0.14	0.14	2013	No	Erosion of natural deposits; Discharge from fertilizer and aluminum factories

<u>Contaminants</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
			<u>Low</u>	<u>High</u>			
Nitrate [measured as Nitrogen] (ppm)	10	0.952	0.366	1.512	2013	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite [measured as Nitrogen] (ppm)	1	0.000	0.000	0.001	2013	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Gross Alpha (pCi/L)	15	0.05	0	0.2	2013	No	Erosion of natural deposits
Gross Beta (pCi/L)	50	1.65	1.2	2	2013	No	Decay of natural and man-made deposits.
Combined Radium 226 & 228 (pCi/L)	5	0.290	0.29	1.418	2013	No	Erosion of natural deposits

<u>Contaminants</u>	<u>MCL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds MCL</u>	<u>Typical Source</u>
Copper - action level at consumer taps (ppm)	1.3	0.07	2011	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	15	1.46	2011	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Important Drinking Water Definitions

<u>Term</u>	<u>Definition</u>
CCR	Consumer Confidence Report
MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant 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.
MRDL	Maximum Residual Disinfectant Level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Unit Descriptions

<u>Term</u>	<u>Definition</u>
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppq	parts per quadrillion or picograms per liter
positive samples/month	Number of samples taken monthly that were found to be positive
NA	Not applicable
ND	Not detected

Again this year, we are proud to report that our water system has not violated any maximum contaminant levels allowed by the Final Governing Standard or Spanish laws.

Annual Declaration of Potability

The Naval Station Rota, Spain, drinking water is declared POTABLE. This declaration is based on the Potable Water System Sanitary Survey results which were conducted by AH Environmental Consultants dated February 2012 along with current U.S. Naval Station Rota, Spain, Public Works Department, Utilities and Energy Management Branch Laboratory water analysis and test results.

CDR Blaine M. Powell
Director of Public Health Services
Naval Hospital Rota, Spain



Fit for Human Consumption

In December 2013 based on the independent compliance sample results for that fiscal year, CAPT G.S. Pekari declared the drinking water on Naval Station Rota, Spain, as “fit for human consumption”.

“Fit for human consumption”, is a term officially used by the U.S. Environmental Protection Agency, for water considered safe for drinking, cooking, bathing, showering, dishwashing, and maintaining oral hygiene.

This Consumer Confidence Report was prepared by Susana Lozita Theilig, Water Programs Manager. NAVFAC Public Works/Environmental Division.