U.S. NAVAL AIR STATION (NAS) SIGONELLA
2012 CONSUMER CONFIDENCE REPORT
U.S. NAVAL COMPUTER AND TELECOMMUNICATION STATION NISCEMI

About this report.

We are proud to present to you our annual drinking water quality report for calendar year 2012. This Consumer Confidence Report (CCR) provides valuable information on water quality and supports the Navy's commitment to providing high quality drinking water to our service members, their families, and DoD personnel. Presented in this report is information regarding the source of our drinking water, its constituents, and the health risks associated with those contaminants detected above applicable regulatory maximum contaminant levels (MCL) or action levels (AL).

What standards apply to drinking water overseas?

DoD water systems in Italy must comply with the Environmental Final Governing Standards-Italy (IFGS). The IFGS were developed through a comprehensive review of the U.S. Environmental Protection Agency (USEPA) Safe Drinking Water Act, generally applied Italian drinking water standards, and applicable international treaty provisions. When Italian and USEPA standards differ, the most protective requirement was adopted into the IFGS. This assures U.S. personnel, family members, and Italian employees receive drinking water which meets requirements mutually agreed upon by the U.S. and Italy. U.S. Food and Drug Administration establishes regulatory requirements for contaminants in bottled water, which must provide similar protection for public health.

Is my water safe to drink?

Yes. Although the tap water provided to Niscemi in 2012 did not consistently meet IFGS drinking water requirements for purchased water, the Preventive Medicine Authority has declared the water potable. The water contained the chemical bromate at levels above the IFGS MCL in March, May, and August 2012. Although bromate can cause health effects after continuous long-term exposure at levels greater than the maximum contaminant level, it does not cause any immediate health effects at the levels found in the water at Niscemi.

Annual Declaration of Potability

The Naval Air Station, Sigonella, Italy, (NISCEMI) drinking water is declared POTABLE. This declaration is based on the Annual Drinking Water Surveillance results conducted by US ARMY PUBLIC HEALTH COMMAND REGION – EUROPE for the second half of calendar year 2012, and current U.S. Naval Air Station, Sigonella, Italy, Public Works Department, Environmental Division water analysis and test results.

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Where does my water come from?

The Niscemi facility purchases treated water from Calta Aqua, Acque di Caltanissetta S.p.A. The water provided to the Niscemi facility comes from a spring house located off-base. The drinking water is processed and disinfected prior to distribution. Bottled water was provided for consumption and food preparation until March 2012 when the newly installed RO system was certified to operate.

Source water assessment and its availability.

The Navy completed a source water assessment in October 2011. This survey evaluated the adequacy of the drinking water sources, facilities, equipment, operation, and maintenance for producing and distributing safe drinking water. Additional information about the source water assessment is available from the Public Works Department (PWD) Environmental Office at 624-2722.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained from the USEPA Safe Drinking Water website, www.epa.gov/safewater/sdwa.

The source of your drinking water is spring water, where water flows naturally to the surface of the earth from underground. As water travels through the ground, it dissolves naturally occurring minerals (including radioactive material), and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water can include the following:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic compounds, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial, 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 chemicals, 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 compounds can be naturally occurring or be the result of oil and gas production and mining activities.

Additional information for 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. PWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, please contact PWD Environmental Office at 624-2722. Information on lead in drinking water and the steps you can take to minimize exposure is available from the USEPA Safe Drinking Water website, www.epa.gov/safewater/lead.

Additional information for Bromate.

If present, elevated levels of bromate can cause serious health problems. Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer. If you are concerned about bromate in your water, please contact PWD Environmental Office at 624-2722. Information on bromate in drinking water and the steps you can take to minimize exposure is available from the USEPA Safe Drinking Water website, www.epa.gov/safewater/sdwa.

Additional information about Nitrate.

High levels of nitrate in drinking water can be dangerous to health, especially for infants and pregnant women. Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. When ingested, high nitrate levels in drinking water can cause blue-baby syndrome. High nitrate levels in spring water often result from overuse of chemical fertilizers or improper disposal of human and animal waste. For those who are pregnant, it is recommended to not drink the water and find alternative water sources. If you are concerned about nitrate in your water, please contact the PWD Environmental Office at 624-2722. Information on nitrate in drinking water and the steps you can take to minimize exposure is available from the USEPA Safe Drinking Water website, www.epa.gov/safewater/sdwa.

For what compounds is Niscemi drinking water tested?

Drinking water supplied to Niscemi is tested at least monthly and analyzed according to standards established by the IFGS. The water is analyzed for over 110 individual parameters including inorganic chemicals, volatile organic chemicals, pesticides, disinfection by-products, radionuclides, microbiological contaminants, and residual chlorine (residual disinfectant). Information on the specific compounds tested and the testing frequency is available from the PWD Environmental Office at 624-2722.

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 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. USEPA/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 USEPA Safe Drinking Water website, www.epa.gov/safewater/sdwa.

How can I get involved?

Customers should always observe water conservation practices. Water is a scarce resource in Sicily and everyone's cooperation in conserving water is greatly appreciated. If you have any questions, concerns, or ideas, please contact the PWD Environmental Office at 624-2722.

Water quality data table.

The following tables summarize the concentration of drinking water contaminants regulated by the IFGS that were detected during 2012, and compounds detected in previous years that are on a greater than one-year monitoring cycle. The presence of contaminants in the drinking water does not necessarily indicate that the water poses a health risk.

Contaminants (units)	USEPA MCLG or MRDLG	IFGS MCL	Your Water	Range		Year	Violation	Typical Source
				Low	High			
Disinfectants								
Chlorine (as Cl2) (ppm)	4	4	1.03	0.03	2.37	2012	No	Water additive used to control microbes.
TTHMs (total trihalomethanes) (ppb)	zero	30	1.4	ND	2.8	2012	No	By-product of drinking water disinfection.
Bromate	Zero	10	26.68*	ND	240**	2012	**YES****	Byproduct of drinking water disinfection.
Inorganic Contaminants								

Barium (ppm)	2	2	0.019	NA		2012	No	Erosion of natural deposits
Contaminants (units)	**USEPA MCLG or MRDLG**	**IFGS MCL**	**Your Water**	**Range**		**Year**	**Violation**	**Typical Source**
				Low	**High**			
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)	0	15	1.4	ND	1.4	2012	No	Corrosion of household plumbing systems; Erosion of natural deposits
Turbidity (NTU)	NA	Acceptable to consumer	1.11	0.29	2.74	2012	No	Soil runoff.
Sodium (optional) (ppm)	NA	200	17	13.2	17	2012	No	Erosion of natural deposits;
Fluoride (ppm)	4	1.5	0.2	ND	.2	2012	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories

Cadmium (ppb)	5	5	2.4	ND	2.4	2012	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Contaminants (units)	**USEPA MCLG or MRDLG**	**IFGS MCL**	**Your Water**	**Range**		**Year**	**Violation**	**Typical Source**
				Low	**High**			
Inorganic Contaminants								
Nitrate [measured as Nitrogen Total] (ppm)	10	44.3	7.15	3.8	16.5	2012	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Ammonium (ppb)	NA	500	260	ND	260	2012	No	Runoff from fertilizer use, leaching from septic tanks, sewage.
Volatile Organic Contaminants								
Vinyl Chloride (ppb)	0	2	0.05	ND	0.05	2012	No	Leaching from PVC piping; Discharge from plastics factories

* Based on Annual Running average of all samples taken during 2012.

**Results based on analysis method DIN EN ISO 15061. The possibility of false positive or biased high results caused by matrix interference cannot be fully excluded by this procedure.

Unit Descriptions	
Term	**Definitions**
NTU	Nephelometric Turbidity Unit – A unit for measuring turbidity. Turbidity is a measure of the cloudiness of the water.
pCi/L	Picocuries per liter – A unit for measuring radioactivity.
ppb	Parts per billion, or micrograms per liter (µg/L).
ppm	Parts per million, or milligrams per liter (mg/L).
NA	Not Applicable.
ND	Not Detected.

Important Drinking Water Definitions	
Term	**Definitions**
AL	Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level – The highest level of a contaminant that is allowed in drinking water. USEPA sets MCLs as close to the MCLG as feasible using the best available treatment technology. MCLs are set by the USEPA or Italian water standards, and the most conservative (typically the lowest) value is adopted by the IFGS.
MCLG	Maximum Contaminant Level Goal – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by USEPA, and include a margin of safety.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

For more information, please contact the PWD Environmental Office at 624-2722.