U.S. NAVAL AIR STATION (NAS) SIGONELLA – NAVAL RADIO TRANSMITTER FACILITY NISCEMI

2025 DRINKING WATER CONSUMER CONFIDENCE REPORT

Is our water safe to drink?

Yes. Naval Air Station (NAS) Sigonella's drinking water systems provide water deemed safe and certified "Fit for Human Consumption" (FFHC; that is safe for drinking, cooking, bathing, showering, dishwashing and maintaining oral hygiene) as determined by the Installation Commanding Officer's Record of Decision dated 2 Nov 2017 and as routinely confirmed by laboratory sampling results (received monthly, quarterly, and yearly). NAS Sigonella is proud to support the Navy's commitment to provide safe and reliable drinking water to our service members and their families. In fact, NAS Sigonella's four water systems were among the first overseas drinking water facilities to receive Conditional Certificates to Operate from Commander, Navy Installations Command (CNIC).

This annual Consumer Confidence Report (CCR) for calendar year 2025 includes general and mandatory information to educate everyone about our water source(s), treatment processes, standard requirements, and other details to help assure you that our water is safe to drink.

Our drinking water fully complies with the Department of War's (DoW) Italy Final Governing Standards (FGS), which are derived from the Overseas Environmental Baseline Guidance Document, U.S. Environmental Protection Agency (EPA) and Italian drinking water standards. When Italian and U.S. standards differ, the most protective requirement is adopted into the FGS. A detailed list of constituents found in our drinking water is included in this report, along with a comparison to the maximum levels considered safe for the general public by these standards.

NAS Sigonella's Commanding Officer, CNIC, and Naval the Facilities Engineering Command (NAVFAC) Europe Africa Central (EURAFCENT) Headquarters recognize the importance of safeguarding the health and well-being of our Sigonella Citizens.

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

U.S. Naval Radio Transmitter Facility (NRTF) Niscemi purchases treated surface water from Caltaqua, Acque di Caltanissetta, S.p.A. This water is piped from the Caltaqua Treatment Plant onto the installation, where Caltaqua provides further treatment consisting of sand and carbon filtration, an advanced reverse osmosis (RO) membrane filtration system, ultraviolet (UV) disinfection, and disinfection prior to distribution. Regardless of differences in the source or the treatment process, all drinking water provided to the NAS Sigonella community must meet the same performance standards.

Why are there contaminants in drinking water?

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. 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 contaminants, and can pick up substances resulting from the presence of animals or from human activity.

As a result, some contaminants may be present in source drinking water such as:

- **Microbial contaminants**, such as viruses and bacteria, that may come from wildlife, sewage treatment plants, septic systems, and agricultural livestock operations;
- **Pesticides and herbicides**, which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses;
- **Inorganic contaminants** such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming;
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Drinking water from any source may also include **disinfection by-products,** formed when disinfectants used in water treatment plants react with bromide and/or natural organic matter (i.e., decaying vegetation) present in the source water. Different disinfectants produce specific types or amounts of disinfection byproducts. Disinfection byproducts for which regulations have been established include trihalomethanes, haloacetic acids, bromate, and chlorite.

The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, regulations limit the amount of certain contaminants in water provided by public water systems. Sampling is conducted routinely, and its goal is to detect the level of any contaminants in the water system. If the results are above regulatory limits, a notification sent by an All Hands e-mail, by a Facebook post, and a post to the NAS Sigonella Environmental Services website https://cnreurafcent.cnic.navy.mil/Installations/NAS-Sigonella/Operations-and-Management/Environmental-Support/ will go to all personnel.

The U.S. Environmental Protection Agency (EPA) established a three-tier public notification plan for drinking water summarized in Table 1. NAS Sigonella follows this outline to ensure notifications occur in a timely manner when necessary.

Table 1. The 3 Tiers of Public Notification*

	Required Distribution Time	Notification Delivery Method
Tier 1: Immediate Notice	Any time a situation occurs where there is the potential for human health to be immediately impacted, water suppliers have **24 hours** to notify people who may drink the water of the situation.	Should a Tier 1 notification be necessary, NAS Sigonella will notify you via an All Hands E-mail message and Facebook.
Tier 2: Notice as Soon as Possible	Any time a water system provides water with levels of a contaminant that exceed EPA or state standards or that hasn't been treated properly, but that doesn't pose an immediate risk to human health, the water system must notify its customers as soon as possible, but within 14 **days** of the violation.	NAS Sigonella will notify you of a Tier 2 concern through an All Hands E-mail message, publication in *The Signature*, and by post on Facebook.
Tier 3: Annual Notice	When water systems violate a drinking water standard that does not have a direct impact on human health (For Example, failing to take a required sample on time) the water supplier has	Tier 3 notifications are published annually in this document, the Consumer Confidence Report.

	up to **a year** to provide a notice of this situation to its customers.	

*Definitions from EPA website. See http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/basicinformation.cfm and DOD Manual 4715.05, Volume 3 Overseas Environmental Baseline Guidance Document (OEBGD): Water.

You can learn more about contaminants and any potential health effects by calling the EPA's Safe Drinking Water Hotline: +1-800-426-4791 or by visiting the EPA's Drinking Water Standards web site: https://www.epa.gov/dwreginfo/drinking-water-regulations.

Source Water Assessment

In May 2023, CNIC and the Navy and Marine Corps Force Health Protection Command (NMCFPHC) conducted a comprehensive sanitary survey of the Naval Radio Transmitter Facility Niscemi drinking water system. This survey provided an evaluation of the adequacy of the drinking water source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water. NAS Sigonella is continually improving the drinking water system based on the recommendations in the report. The 2026 triennial sanitary survey, initiated in May by CNIC and NMCFPHC, is ongoing.

Some People Must Use Special Precautions

Some individuals 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 consumers should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline: +1-800-426-4791 or by visiting www.epa.gov/safewater/sdwa.

Additional Information for Lead

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems.

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. NAS Sigonella Public Works is responsible for providing high-quality drinking water and for ensuring that no lead service lines or components are used in the drinking water system. The NAS Sigonella lead service line inventory is updated periodically, and no lead service lines have been identified. Public Works cannot control the variety of materials used in plumbing components in your home. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. 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 several minutes prior to use. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

To meet the EPA and Italy FGS action level for lead and copper, 90 percent of the buildings tested must have lead levels below 15 micrograms per liter (µg/L) and copper levels below 1.3 milligrams per liter (mg/L). This measurement is referred to as the 90th percentile, and it is reported in Table 2, Water Quality Data.

The complete NAS Sigonella lead tap sampling data and lead service line inventory is available for review by contacting the Installation Water Quality Board via the Installation Environmental Program Director at 095-86-2725.

Water Quality Data Table

Table 2 identifies drinking water contaminants and relevant sampling data collected during the 2025 calendar year or the last year the sampling was conducted. NAS Sigonella samples for many more chemicals than are found in this table; only those contaminants detected in the water are presented in the table. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Tables 3 and 4 include common definitions and unit descriptions used in drinking water analysis.

Table 2. Results of Latest Required Drinking Water System Testing

Contaminants (Units)	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low-High	Sample Date	Violation	Typical Source
Inorganic Components							
Barium (mg/L)	2	2	0.0125	0. 0122 - 0.0125	2025	NO	Discharge of drilling wastes; erosion of natural deposits
Boron (mg/L)	N/A	1	0.065	0.060 - 0.065	2025	NO	Erosion of natural deposits
Chloride (mg/L)	N/A	250	14.5	14.0 - 14.5	2025	NO	Erosion of natural deposits
Conductivity (µS/cm)	N/A	2500	202	160 - 202	2025	NO	Naturally present in the environment
Copper (mg/L)	1.3	1	0.008	< 0.0005 - 0.008	2025	NO	Corrosion of household plumbing systems; Erosion of natural deposits
Dry Residues (mg/L)	N/A	1500	120	101 - 120	2025	NO	Erosion of natural deposits
Nitrate (mg/L as N)	10	10	3.2	2.3 - 3.2	2025	NO	Runoff from fertilizer use; sewage; erosion of natural deposits
Nitrite (mg/L as N)	1	1	0.02	< 0.01 - 0.02	2025	NO	Runoff from fertilizer use; sewage; erosion of natural deposits
Total Nitrate and Nitrite (mg/L as N)	10	10	3.2	2.3 - 3.2	2025	NO	Runoff from fertilizer use; sewage; erosion of natural deposits
pH	N/A	6.5-9.5	6.9-7.1	6.9 - 7.1	2025	NO	Naturally present in the environment
Selenium (mg/L)	N/A	0.010	0.000323	0.000193 - 0.000323	2025	NO	Erosion of natural deposits

Contaminants (Units)	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range Low-High	Sample Date	Violation	Typical Source
Oxidizability (mg/L as O_2)	N/A	5	1.23	< 0.5 - 1.23	2025	NO	Amount of oxidizable organic and inorganic substances
Sodium (mg/L)	N/A	200	15.8	13.9 - 15.8	2025	NO	Erosion of natural deposits
Sulfate (mg/L)	N/A	250	14.8	14.0 - 14.8	2025	NO	Erosion of natural deposits
Total Hardness (as $CaCO_3$, mg/L)	N/A	15-50	5.1	5.1	2025	NO	Erosion of natural deposits
Radionuclides							
Gross Alpha (pCi/L)	0	15	0.86	0.051 - 0.86	2025	NO	Naturally occurring; runoff from oil/gas or mining
Radium-226 and -228 (pCi/L)	0	5	0.4	0.087 - 0.4	2025	NO	Naturally occurring; runoff from oil/gas or mining
Beta Particle and Photon Radio activity (mrem/yr)	0	4 (50 pCi/L Screening Value)	0.37 (pCi/L)	0.34 - 0.37 (pCi/L)	2025	NO	Decay of natural and man-made deposits
Tritium (pCi/L)	N/A	2702	13	5.7-13	2025	NO	Naturally occurring; runoff from oil/gas or mining
Disinfectant and Disinfection By-Product Components							
Chlorine (mg/L)	4	4	1.7	1.0 - 1.7	2025	NO	Water additive used to control microbes
Trihalomethanes, TTHM (mg/L)	0	0.030	0.03167 Annual Average	0.00588 - 0.0542	2025	YES	Byproduct of drinking water disinfection
Microbiological Components							
Turbidity (NTU)	TT	N/A	0.38	< 0.2 - 0.38	2025	NO	Soil runoff

Contaminants (Units)	AL	Your Water (90th Percentile)	Range Low-High	Sample Date	Violation	Typical Source
Lead and Copper (taken at 5 consumer taps)						
Lead (µg/L)	15	2.27	1.25 - 2.34	SEP 2025	NO	Corrosion of household plumbing
Copper (µg/L)	1300	127	68 - 152	SEP 2025	NO	Corrosion of household plumbing

Table 3. Important Drinking Water Definitions

Term	Definition
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. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
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 allow for a margin of safety.
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.
MRDLG	Maximum residual disinfection 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.
N/A	Not Applicable
ND	Not Detected, also below the PQL
PQL	Practical Quantitation Limit, the lowest limit at which the contaminant can be detected reliably.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	EPA permission not to meet an MCL or a treatment technique under certain conditions.

Table 4. Unit Descriptions

Term	Definition
mg/L	milligrams per liter (mg/L) or parts per million
µg/L	micrograms per liter (µg/L) or parts per billion
ng/L	nanograms per liter (ng/L) or parts per trillion
NTU	Nephelometric Turbidity Units
pCi/L	picocuries per liter (a measure of radioactivity)
µS/cm	microsiemens per centimeter

Monitoring Discrepancies

This section includes Tier 3 notifications in accordance with EPA procedures. Tier 3 notifications do not have an impact on human health but are required by the EPA (See Table 1).

Organic Chemical-Pesticide/PCB Group

- Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Carbofuran, Glyphosate, Oxamyl (Vydate)
  - Q3: The samples were received at the analytical lab in the U.S. outside the acceptance range of 1-6 degrees C.
- Dalapon, Dinoseb, Picloram, 2,4-D, and 2,4,5-TP (Silvex), -Di (2-ethylhexyl) adipate, Di (2-ethylhexyl) phthalate, PCBs (as decachlorobiphenyls)
  - Q4: Analytical holding time requirements were exceeded during shipment to the U.S. for analysis.

- Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Carbofuran, Oxamyl, 2,4-D, Dinoseb, Glyphosate, Picloram, 2,4,5-TP, Pesticides-Total: (All four quarters); Aldrin, Dieldrin, Benzo-pyrene, Pentachlorophenol: (Q1, Q2, Q3).
    - U.S. analytical lab detection limits did not meet the Italy- Final Governing Standard (FGS) MCL requirement.

Inorganic Chemicals

- Dry residues
    - Q1 was resampled on 14 MAY due to laboratory error in first round of sampling.

Disinfectant Byproducts

- Total Trihalomethanes
    - Two quarterly sampling values (0.0513 mg/L, Q2 and 0.0542 mg/L, Q3) at B2100, Main Transmitter Facility, exceeded the Italy-FGS threshold (0.030 mg/L). Locational Running Annual Average for the two quarters exceeded the Italy-FGS MCL (0.03155 and 0.03167 respectively). An operational evaluation level assessment was performed to determine the likely source of the elevated levels, and treatment filters were replaced and flushing of the distribution system was performed. Note the Italy-FGS level is more stringent than the U.S. EPA level (0.030 mg/l vs 0.080 mg/L). Tier II Public Notifications for the exceedances were issued 06 AUG 2025 and 08 OCT 2025.

Lead Service Line Inventory

- NAS Sigonella performed a lead service line inventory on 05 FEB 2025 (field visit portion) with updates on 02 SEP 2025. While we found no lead service lines at the NRTF Niscemi system, one service line is Galvanized Requiring Replacement. You can obtain a copy of the full inventory and all lead tap sample results by calling the number at the bottom of this CCR. NAS Sigonella is developing a replacement plan which will be completed no later than November 2027. Future CCRs will provide updates on the replacement plan status.

Points of Contact

If you have any questions regarding this report or about the drinking water processes, please contact the NAS Sigonella Installation Water Quality Board via the Installation Environmental Program Director by calling 095-86-2725.