Naval Auxiliary Landing Field (NALF) Fentress Drinking Water Monitoring Program

We follow the same standards as the Cities of Chesapeake and Virginia Beach

The Navy is required by the state to routinely monitor NALF Fentress drinking water for all the following contaminants:

- *Inorganic contaminants*, such as salts, metals and chemicals, 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 come from gas stations, urban storm water runoff, and septic systems
- *Disinfection By Products*, such as Haloacetic Acids and Total Trihalomethanes, which are by products of drinking water disinfection
- *Lead and Copper*, which are associated to corrosion of household plumbing systems, and erosion of natural deposits
- *Microbial contaminants*, such as Total Coliform bacteria which is harmless and generally found in soil and vegetation; and E.Coli bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife

The 2015 Water Quality Data Table lists only those contaminants that were present in your drinking water at levels detectable by laboratory equipment. Unless otherwise noted, the data presented in these tables is from testing done in 2015. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The U.S. Environmental Protection Agency (EPA) sets the Maximum Contaminant Levels (MCLs) as listed in the tables.

WHY IS THE NAVY SAMPLING FOR PFCs?

- Perfluorinated Compounds (PFCs) are unregulated contaminants that are being sampled for the first time in Public Water Systems
- EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) program to collect data for contaminants suspected to be present in drinking water that may be considered for future regulation.
  - Monitoring is required for public water systems serving > 10,000 persons
  - Data was collected from 2012 though 2015
- EPA is working to improve its understanding of the prevalence and toxicity of PFCs to determine if safe drinking water regulatory limits are needed
- EPA issued Provisional Health Advisories (PHAs) for the PFCs, Perfluorooctane Sulfonate (PFOS) and Perfluorooctanic Acid (PFOA) in 2009
  - The PHAs are reasonable health based hazard concentrations, above which actions should be taken to reduce exposure
  - Laboratories were only recently capable of analyzing for these contaminants

The PHA for PFOS is 0.2 ug/L or 0.2 parts per billion
The PHA for PFOA is 0.4 ug/L or 0.4 parts per billion

2015 NALF FENTRESS WATER QUALITY DATA TABLE

Inorganics	Unit	MCL	Highest Level	Meets EPA Standards	Possible Source of Contamination
Fluoride (2013 data)	ppm	4.0	0.19	Yes	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate-Nitrite combined test	ppm	1 (Nitrite) 10 (Nitrate)	0.35	Yes	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Microbiological Indicators	**Unit**	**MCL**	**Highest Level**	**Meets EPA Standards**	**Possible Source of Contamination**
Total Coliform	# of positive samples	More than one per month	2[1]	No	Naturally present in soil and vegetation

[1]This number represents the highest number of positive coliform samples in a month (exceeded in October 2015). Follow up testing for E.Coli indicated no health threat existed. Total Coliform in the distribution system may indicate a potential for microbial contamination but in and of themselves do not indicate a health threat.

Residual Disinfectants & Disinfection By Products	Unit	MCL	Highest Level	Meets EPA Standards	Possible Source of Contamination
Haloacetic Acids (HAA5)	ppb	60	24.5[2]	Yes	Drinking water disinfectant by-product
Trihalomethanes (TTHM)	ppb	80	30.5[2]	Yes	Drinking water disinfectant by-product
Total Chlorine Residual	ppm	4[3]	1.4[2]	Yes	Drinking water disinfectant

[2]This number is the highest running annual average of quarterly compliance samples for the 2015 calendar year. [3]MRDL (see definitions below)

Lead and Copper Monitoring	Unit	Action Level	Highest Level	90th Percentile	Meets EPA Standards	Possible Source of Contamination
Copper (2015 data)	ppm	1.3	0.310	0.529	Yes	Corrosion of pipes; Erosion of natural deposits
Lead (2015 data)	ppb	15	3	3	Yes	Corrosion of household plumbing systems; Erosion of natural deposits

Definitions and Abbreviations:

- Action Level (AL) - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow. For lead and copper monitoring, compliance is based on the 90th percentile value. The AL is not considered a health based standard but a treatment technique (TT). The TT is a required process intended to reduce the level of a contaminant in drinking water.
- Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- Maximum Residual Disinfectant Level (MRDL) - 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. For chlorine and chloramines, a waterworks is in compliance with the MRDL when the running annual average of monthly averages of samples taken in the distribution system, computed quarterly, is less than or equal to the MRDL.
- Non-detection (ND) – Laboratory analysis indicates that the contaminant is not present.
- Parts per million (ppm) or Milligrams per liter (mg/L) – A measurement of the amount of contaminant per unit of water. A part per million is like one cent in $10,000 or one minute in two years.
- Parts per billion (ppb) or Micrograms per liter (ug/L) – A measurement of the amount of contaminant per unit of water. A part per billion is like one cent in $10,000,000 or one minute in 2,000 years.
- Provisional Health Advisory (PHA) - Established by EPA to assess the potential risk from short-term exposure of these chemicals through drinking water. PHAs reflect reasonable, health-based hazard concentrations above which action should be taken to reduce exposure to unregulated contaminants in drinking water

Navy Region Mid-Atlantic Drinking Water website
http://1.usa.gov/1QbwtwN

EPA Emerging Contaminants Fact Sheet
http://1.usa.gov/1QbweBI

Drinking water produced at NALF Fentress meets all Federal and State Requirements.
Navy PFC testing and response goes beyond these requirements to protect our sailors and civilians.