



Frequently Asked Questions- Water

Submit your questions to: NMCPHCPTS-EnvironmentalHealthGroup@med.navy.mil

What DPD tablet do you use while in port? What do you use while out to sea?

The DPD test is used to determine chlorine or bromine residuals. There are a variety of DPD test kits available and the specific manufacturer's instructions for testing free available chlorine (FAC), total chlorine, or total bromine must be followed. The type of disinfectant used will direct what test must be done. For example, if chlorine is used at the water treatment plant then FAC is measured, while the use of chloramines would require the measurement of total chlorine. Generally, the DPD No 1 tablet is used when testing FAC residuals; DPD No 4 tablet is used to test for total chlorine.

What is halogen residual?

Halogen residual is a measure of the Free Available Chlorine (FAC) or Total Chlorine concentration level that is present in a water distribution system. Halogen residual is maintained in order to help guard against biological contamination in a water distribution system. Measurements of FAC or Total Chlorine are applicable at U.S. and overseas facilities, while FAC and Total Bromine Residual (TBR) are utilized aboard ships. Halogen residuals can be determined using any EPA-approved method. When the halogen residual is insufficient (FAC <0.2 ppm or total chlorine < 1.0 ppm), additional disinfection treatment is required to be performed by Public Works or the Engineering Department.

The loss of halogen residual within a distribution system may be the result of numerous factors including long detention time in storage tanks, oversized transmission lines, dead-ends, and closed valves that can create artificial dead-ends. In addition, the accumulation of organic and inorganic matter such as sediments, debris, corrosion by-products, and biofilm (organic growth) can contribute to the loss of the halogen residual. An insufficient halogen residual can lead to the growth of coliform organisms and accumulation of biofilm. The presence of total coliform organisms in treated drinking water is an indicator of either inadequate disinfection treatment or biofilm growth. Presence of total coliforms requires the water supplier (Public Works or Engineering) take immediate corrective action. Medical should consult with the water supplier to ensure corrective action is being completed. The presence of E. Coli is an acute health hazard and the water is considered unsafe for consumption.



Should I conduct inspections and water testing if we are on a barge?

Barges, tugs, and other similar yard craft usually do not have water producing capability. Most are equipped with a water storage tank and limited distribution system that uses water transferred from a shore facility. Daily testing for halogen residual is not usually performed due to the lack of personnel and equipment. However, the MDR and port services officer (PSO) must develop and implement a system for collection and examination of water samples for each group of yard craft. Water samples must be collected from each craft water tank and distribution system for bacteriological analysis on a weekly basis. The MDR will investigate any bacteriological contamination and provide recommendations regarding correction and disinfection.

Can Preventive Medicine test for water quality on-base even if the water comes from the city's distribution system and water treatment plant?

NAVFAC is responsible for water quality compliance monitoring to verify that the quality of drinking water on the Navy and Marine Corps installations meets water quality standards. As specified in Chapter 10 of [OPNAVINST 5090.1C](#), Navy installations operating water systems shall comply with all applicable Federal, State, and local safe drinking water regulations, executive orders, and Navy policy. Regardless of variances and exemptions from regulatory monitoring, shore facilities that own and operate a consecutive water system shall, at a minimum, perform the following monitoring: Bacteriological monitoring, Asbestos, Lead in priority areas, Lead and Copper in water systems, and a review of primary PWS records.

Preventive Medicine is responsible for medical surveillance of the drinking water system. Surveillance includes verifying that Public Works is conducting compliance monitoring using certified laboratories, issuing Consumer Confidence Reports and Public Notifications when necessary, and liaison with Public Works (or other water purveyor), certified water laboratories, and local, State, and Federal regulatory authorities, as needed. Preventive Medicine will collect samples for bacteriological testing and halogen residual testing only in response to consumer complaints and outbreak investigations.



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Does my command need a drinking water source in our gym/fitness facility?

According to *MIL-STD-3007F STANDARD PRACTICE FOR UNIFIED FACILITIES CRITERIA AND UNIFIED FACILITIES GUIDE SPECIFICATIONS*, Fitness Centers are required to have electric water coolers throughout the facility with the capability for drinking and filling water bottles.