



DEPARTMENT OF THE NAVY  
ATLANTIC DIVISION  
NAVAL FACILITIES ENGINEERING COMMAND  
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IN REPLY REFER TO:

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18 JUL 1980


From: Commander, Atlantic Division, Naval Facilities Engineering Command  
To: Distribution

Subj: Trihalomethanes in drinking water

Ref: (a) 40 CFR Part 141, Federal Register, Vol. 44 of 29 Nov 1979

Encl: (1) Summary of Trihalomethanes Regulations  
(2) "Questions and answers concerning the regulation of organic contaminants in drinking water with special emphasis on Trihalomethanes" - EPA's final draft

1. In compliance with requirements of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) published final regulations in reference (a) for the control of total Trihalomethanes (TTHM) as an amendment to the National Primary Drinking Water Standards. Enclosure (1) is a complete summary of the monitoring and reporting requirements of the regulations.
2. The regulations establish a maximum contaminant level (MCL) of 0.10 mg/l for TTHM's, including chloroform, that are introduced into drinking water by the reaction of naturally occurring substances with chlorine in the course of water treatment. Hence, an EPA publication containing various questions and answers concerning regulation of the subject contaminant is forwarded for your information and use (enclosure (2)).
3. Guidance pertaining to the initiation of a sampling/monitoring program at impacted naval activities for TTHM will be provided by this Command at a later date. Questions regarding this matter may be directed to Wallace Carter, commercial (804) 444-7313 or AUTOVON 690-7313.

  
ANDRES TALTS  
By direction

Distribution:  
NSC NORFOLK CHEATHAM ANNEX  
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FLECOMBATRACENLANT DAM NECK

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SUMMARY OF TTHM REGULATIONS

Maximum Contaminant Level (MCL): 0.10 mg/l (100 micrograms per liter)  
Total Trihalomethanes

Applicability: Community water systems that add disinfectant to the treatment process (ground and surface)

Effective: Systems >75,000: 2 years after promulgation  
Systems 10-75,000: 4 years after promulgation  
Systems <10,000: State discretion

Monitoring requirements: Running annual average of a minimum of 4 samples per quarter per plant taken on same day. Systems using multiple wells drawing raw water from a single aquifer may, with State approval, be considered one treatment plant for determining the required number of samples.

Effective: Systems >75,000: 1 year after promulgation  
Systems 10-75,000: 3 years after promulgation  
Systems <10,000: State discretion

Sample Locations: 25% at extreme of distribution system; 75% at locations representative of population distribution.

Frequency:

For groundwater systems, reduced monitoring may be appropriate for certain systems; States may reduce the requirements through consideration of appropriate data including demonstration by the system that the maximum total trihalomethane potential (MTP) is less than 0.10 mg/l; the minimum frequency would be one sample per year for MTP.

For ground water systems not meeting the above MTP and for surface water systems, States may reduce the monitoring requirements if after one year of data collection, TTHM levels are consistently below 0.10 mg/l; the minimum frequency would be one sample per quarter for TTHM.

The original frequency would be reinstated if the levels exceed 0.10 mg/l or if the treatment or source is modified.

Reporting Requirements:

To State: Average of each quarterly analysis, within 30 days; until States have adopted the regulations, reporting will be to EPA unless State requests receipt of data from the public water systems.

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ENCL(1)

To Public and State: Running annual average of each quarterly sample if it exceeds MCL as prescribed by the public notification provisions.

Other Requirements:

To ensure microbiological quality: State approval of significant modifications in the treatment process for the purpose of meeting the THM MCL.

Analytical requirements: In accordance with specified methods (purge and trap or liquid/liquid extraction) conducted by certified laboratories.

Other Issues of Interest: Guidance on alternative disinfectants

- ° Conduct monitoring when chlorine dioxide is used and residual oxidants should not exceed 0.5 mg/l.
- ° The decision of using chloramines is best made on a case-by-case basis by the State.
- ° Standard plate count should be a condition for State approval of systems where process modifications are contemplated.

Laboratory Availability (interim certification):

- ° To quality for interim certification. Laboratories will be required to demonstrate their ability to analyse the performance evaluation samples provided to them by EPA's Environmental Monitoring and Support Laboratory (EMSL) to within 20% of the "true value" for each THM as well as the total.
- ° A quality assurance program will be established to ensure a laboratory's ability to perform quality analyses.

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