



DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511

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IN REPLY REFER TO:

114:WLC
6280

26 AUG 1981

From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune (Attention
Assistant Chief of Staff for Facilities)

Subj: Monitoring data for Trihalomethanes in drinking water; request for

- Ref: (a) 40 CFR Part 141, Federal Register, Vol. 44 of 29 Nov 1979
- (b) LANTNAVFACENGCOM ltr 114:WLC 6280 of 29 Jul 1980
- (c) FONECON MCB CAMP LEJEUNE (Mr. D. Sharp)/LANTNAVFACENGCOM
(Mr. W. Carter) of 21 Aug 1981
- (d) LANTNAVFACENGCOM ltr 114:JGW 6280 of 31 Jul 1981

- Encl: (1) Summary of Trihalomethanes Regulations
- (2) TTHM Surveillance Report Forms-Hadnot Point
- (3) TTHM Surveillance Report Forms-MCAS H NEW RIVER

1. As an amendment to the National Primary Drinking Water Standards, reference (a) establishes a maximum contaminant level (MCL) of 0.10mg/l for total Trihalomethanes (TTHM), including chloroform, that are introduced into drinking water by the reaction of naturally occurring substances with chlorine in the course of water treatment. Enclosure (1) is a complete summary of the monitoring and reporting requirements of the regulations.

2. Reference (b) initiated the monitoring program at MCB CAMP LEJEUNE for development of a TTHM data base prior to the scheduled compliance date. However, sampling will be terminated (tentatively projected for December 1981) once sufficient data have been received by this Command to characterize the potable water supplies. At such time, further action may be pursued through planned field surveys to identify sources of organic precursors and modification within treatment plant where conditions warrant.

3. Enclosures (2) and (3) are forwarded for your information and use as requested during refernece (c). They document the subject monitoring program which includes samples from the Hadnot Point and MCAS H NEW RIVER plants and distribution systems. Arrangements have been made (per reference (d)) to also include the Rifle Range plant and system in the above program commencing in July 1981. Additional data will be forthcoming, upon receipt by this office.

4. Any questions or comments regarding implementation of the sampling program should be addressed to Mr. W. Carter of this Command at AUTOVON 690-4903.

J. R. Bailey
J. R. BAILEY
By Direction

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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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ENCLOSURE (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 qualify 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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