

ASSISTANT CHIEF OF STAFF, FACILITIES
HEADQUARTERS, MARINE CORPS BASE

DATE 2-1-82

TO:

[BASE MAINT O]

PUBLIC WORKS O

COMM-ELECT O

~~ACTED TRANSPORT O~~

DIR, FAMILY HOUSING

DIR, UNACCOMPANIED PERS HSG

BASE FIRE CHIEF

ATTN: _____

1. Attached is forwarded for info/action.
2. Please initial, or comment, and return all papers to this office.
3. Your file copy

J. H. Fitzgerald
By direction

"LET'S THINK OF A FEW REASONS
WHY IT CAN BE DONE"

MCBCL 5216/21 (REV. 2-81)

CLW

0000003796



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

TELEPHONE NO.
444-9558
AUTOVON 690-9558
IN REPLY REFER TO:
114:WLC
11330

2 8 JAN 1982

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

Subj: Corrosivity Monitoring of Drinking Water

Ref: (a) Title 40, Code of Federal Regulations, Part 141, "National Interim Primary Drinking Water Regulations"

Encl: (1) Naval Energy and Environmental Support Activity (NAVENENVSA) Bulletin 078 of Jan 1982

1. Reference (a) requires suppliers of "community public water systems" to monitor the corrosivity characteristics of their water. Corrosivity monitoring includes measurements of parameters such as pH, alkalinity, total dissolved solids, hardness and calculation of the Langelier Index (i.e., whether the source is scale forming, corrosive or in chemical balance).
2. The subject monitoring requirements become effective 27 February 1982 and must be completed within 12 months of this date. Therefore, enclosure (1), which summarizes these requirements, is being forwarded for your information and use.
3. Should there be questions regarding this matter, please contact Mr. Wallace Carter, LANTNAVFACENGCOM, Code 114, telephone number (804) 444-9558 or AUTOVON 690-9558.

J. R. Bailey
J. R. BAILEY
By direction

Distribution:
CNTT DET BAINBRIDGE
MCB CAMP LEJEUNE ←
MCAS CHERRY POINT
NAVRADSTA R SUGAR GROVE
NAVSTA ROOSEVELT ROADS

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FAC ROUTING **1 FEB 1982**

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INFORMATION



BULLETIN

Naval Energy and Environmental Support Activity
IB-078

Port Hueneme, California 93043
January 1982

CORROSIVITY MONITORING

UNDER THE

SAFE DRINKING WATER ACT

The National Interim Primary Drinking Water Regulations (40 CFR 141) of August 27, 1980 requires "community public water systems" to monitor the corrosivity characteristics of the water. The requirements for corrosivity monitoring become effective February 27, 1982. All requirements must be completed within 12 months of this date.

INTRODUCTION

The corrosiveness of drinking water may have serious health and economic consequences. Not only does corrosiveness of water affect the look and taste of water, but also can produce by-products in a distribution system that may be hazardous to human health. Corrosive water can dissolve cadmium, lead, zinc, iron, and copper piping materials. For this reason EPA promulgated special monitoring regulations for corrosivity.

Navy shore activities in the United States that own or operate a "community public water system" must comply with the requirements of the regulation. A "community public water system" by definition is a system for providing the public piped water for human consumption. Further, the system has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. The system includes: (1) all collection, treatment, storage, and distribution facilities under control of the operator of such a system and used primarily in connection with the system; and (2) any collection or pretreatment storage facilities not under such control that are used primarily in connection with the system.

A naval activity that purchases all of its water, but does not operate collection or treatment facilities and does not sell water to any person outside Navy owned property is not subject to these requirements. Booster chlorination is not considered a treatment facility but rather a process for insuring adequate chlorination. A Navy activity that purchases all of its water and sells it to any person outside Navy owned property may be subject to these requirements. In this case, booster chlorination may qualify as a treatment facility for drinking water.

COMPLIANCE REQUIREMENTS

The regulation requires the monitoring of those parameters that affect corrosivity. Specifically, the parameters are pH, alkalinity, total dissolved solids (total filterable residue), hardness, and the Langelier Index. Laboratories performing these analyses must use analytical methods approved by EPA. Also, the laboratories must be EPA approved or state certified.

Sampling is required at a representative entry point to the water distribution system for the following conditions:

- Surface Water Sources: Two samples per treatment plant are required for analysis where surface water is the source wholly or in part. One sample is to be taken during mid-winter and one sample in mid-summer.
- Groundwater Sources: One sample per treatment plant is required for analysis where groundwater is the source. Multiple wells drawing from the same aquifer may (with state approval) be considered one facility for determining the number of samples.

NOTE: The term "treatment plant" is not clearly defined at 40 CFR 141. The activity should contact the state, if it has primary enforcement responsibility, or the EPA regional office for definition of the term "treatment plant" as used in this regulation.

Results of analysis must be reported within the first 10 days of the month following the month in which the results are received. The results are submitted to EPA regional offices or the state offices where the state has primacy for drinking water.

"Community public water systems" also are required to report the type of construction materials used in the distribution system. This information should be forwarded with the results of the corrosivity monitoring.

States which have primacy may impose additional sampling and reporting requirements.

RESPONSIBILITY

Details on complying with the requirements of the National Interim Primary Drinking Water Regulations are given in NAVFACINST 11330.14A of 12 February 1980. Where required, shore activities are responsible for operating and maintaining facilities to provide drinking water. These responsibilities include: sampling, conducting analyses, and submitting reports required by the National Interim Primary Drinking Water Regulations.

For more information or assistance contact the cognizant Naval Facilities Engineering Command (NAVFAC) Engineering Field Division.

NORTHDIV	Code 114	A/V 443-4972
SOUTHDIV	Code 114C	A/V 794-5510
CHESDIV	Code 114.2	A/V 288-3761
LANTDIV	Code 1142	A/V 690-7313
WESTDIV/San Bruno	Code 1142	A/V 859-7494
WESTDIV/San Diego	Code 1141	A/V 958-8853
WESTDIV/Seattle	Code 1143	A/V 439-8666
PACDIV	Code 11419	A/V 471-3948

REQUEST FOR ANALYTICAL SERVICES
COMMUNITY PUBLIC WATER SYSTEM
NORTH CAROLINA DRINKING WATER ACT

CLW
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STATE LABORATORY OF PUBLIC HEALTH
DIVISION OF HEALTH SERVICES
N.C. DEPARTMENT OF HUMAN RESOURCES
P.O. BOX 28047 - RALEIGH, N.C. 27611

DATE _____
TELEPHONE (919) 733-7308

THIS SYSTEM INTENDS TO USE THE STATE LABORATORY FOR THE ANALYSES CHECKED BELOW:

SODIUM \$15.00 PER SAMPLE

CORROSIVITY \$45.00 PER SAMPLE.
(NO pH OR TEMPERATURE)

TRIHALOMETHANES
4 QUARTERS x _____ SAMPLES PER QUARTER x \$60.00 PER SAMPLE = _____

TOTAL AMOUNT DUE _____

YOU WILL BE NOTIFIED WHEN RESAMPLING AND CONTRACT RENEWAL ARE REQUIRED.

THE SYSTEM USES: (CHECK ONE)

GROUND SOURCE (WELL(S), SPRING)

▼ PLEASE PRINT OR TYPE ▼

SURFACE SOURCE (LAKE, RIVER, STREAM)

NAME AND ADDRESS/LOCATION OF WATER SYSTEM _____

NAME AND ADDRESS OF OWNER _____

ZIP
34767/343 C-4-00 0232
CAMP LEJEUNE
COMMANDING GENERAL
MARINE CORPS BASE
CAMP LEJEUNE NC 28542

TELEPHONE NO. () _____

NAME AND ADDRESS OF PERSON TO WHOM SAMPLE
KITS ARE TO BE MAILED _____

ZIP _____

PAYMENT MUST ACCOMPANY THIS REQUEST. REMIT BY CHECK OR MONEY ORDER. DO NOT SEND CASH.
MAKE CHECK PAYABLE TO "STATE LABORATORY OF PUBLIC HEALTH".





Ronald H. Levin, M.W., M.P.H.
STATE HEALTH DIRECTOR

0000003801

DIVISION OF HEALTH SERVICES
STATE LABORATORY OF PUBLIC HEALTH
306 N. Wilmington St.
P.O. Box 28047
Raleigh, N.C. 27611-8047

February 24, 1982

M E M O R A N D U M

TO: Public Water System Owner/Operator
FROM: State Laboratory Of Public Health
SUBJECT: Analytical Services to Meet New Monitoring Requirements

There have been some additions to the monitoring requirements under the N.C. Safe Drinking Water Act. These additions apply only to community water systems.

Please review the following information regarding monitoring for sodium, monitoring for corrosivity, and monitoring for trihalomethanes. If you are to monitor and would like to use the analytical services of the State Laboratory of Public Health, simply fill out and return the attached request for analytical services with payment. Kits will be sent and analyses performed within the required monitoring period and a copy of the laboratory results will be forwarded to the Water Supply Branch for all systems contracting with the State Laboratory of Public Health.

SPECIAL MONITORING FOR SODIUM (Beginning February 27, 1982)

Water suppliers for community public water systems must collect and analyze one sample per treatment plant at the entry point of the distribution system to determine sodium concentration levels. Samples must be collected and analyzed every year for systems using surface water (completely or partially) such as lakes or rivers. For systems using only ground water sources such as wells, samples must be collected and analyzed every three years. The minimum number of samples required is based on the number of treatment plants used by the system. There is an exception: multiple wells drawing raw water from a single aquifer (natural underground water source) may, with state approval, be considered one treatment plant for determining the minimum number of samples. The state may require more frequent sampling in areas where the sodium content is variable.

Memo (continued)
Public Water System Owner/Operator
Page 2
February 24, 1982

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SPECIAL MONITORING FOR CORROSIVITY CHARACTERISTICS

(During the period of February 27, 1982 to February 27, 1983)

Water suppliers for community public water systems must collect samples from a representative entry point to the water distribution system to determine the corrosivity characteristics of the water (pH and temperature tests which must be done when the samples are collected are the water systems' responsibility).

The supplier must collect two samples for each plant using surface water sources (completely or partially) - one during mid-winter and one during mid-summer. The supplier must collect one sample for each plant using ground water sources. The state may require more samples in either case. The minimum number of samples required is based on the number of treatment plants used by the system. There is an exception: multiple wells drawing raw water from a single aquifer may, with state approval, be considered one treatment plant for determining the minimum number of samples.

MONITORING FOR TRIHALOMETHANES *(Beginning November 29, 1982)*

Water suppliers for community public water systems (serving 10,000 or more individuals) who add disinfectant (oxidant) to the water during any part of the process shall analyze for trihalomethanes (THM's).

All systems using surface water in whole or in part and all ground water systems that have not been determined by the Department to qualify for special monitoring (.1635c) shall analyze for THM's as follows:

At least 4 samples must be collected per plant per quarter, of which 25% shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining 75% of the samples shall be taken at representative locations in the distribution system.

JCS/jbw

Enclosures

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MTC

SAFE DRINKING WATER ACT MONITORING SCHEDULE

TYPE OF SYSTEM	*INORGANIC CHEMICAL	*ORGANIC CHEMICAL	RADIOLOGICAL	COLIFORM BACTERIA	TURBIDITY	TRIHALOMETHANES	SODIUM	CORROSIVITY
<u>Community Ground</u> (Well supplies serving 15 or more year-round residential connections or more than 25 residents)	Analyze every 3 years	Not applicable unless determined by enforcing agency	Natural only. Analyze every 4 years	Analyze monthly	Not applicable	Population 75,000 and over - monitoring began November 1980 Population 10,000-75,000 - monitoring begins November 1962 Population 10,000 or less - not applicable at this time Analyze quarterly unless otherwise designated	Beginning February 27, 1982, analyze one sample per treatment plant every 3 years	Beginning February 27, 1982, analyze one sample per treatment plant by February 1983
<u>Community Surface</u> (River, stream, or lake systems serving 15 or more year-round residential connections or more than 25 year-round residents)	Analyze yearly	Analyze every 3 years	Natural. Analyze every 4 years. Manmade (over 100,000 population). Analyze every 4 years	Analyze monthly	Analyze each day of operation	Population 75,000 and over - monitoring began November 1980 Population 10,000-75,000 - monitoring begins November 1982 Population 10,000 or less - not applicable at this time Analyze quarterly	Beginning February 27, 1982, analyze one sample per treatment plant per year	Beginning February 27, 1982, analyze two samples (one in mid-winter and one in mid-summer) per treatment plant by February 1983
<u>Non-Community</u> (System serving 15 or more non-residential connections or at least 25 people at least 60 days per year)	Nitrates only. Analysis required at discretion of enforcing agency	Not applicable	Not applicable	Analyze quarterly	Surface only. Analyze daily unless otherwise designated	Not applicable	Not applicable	Not applicable

*Inorganic Chemicals - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Nitrate, Selenium, Silver, Fluoride, Iron, Manganese, pH
*Organic Chemicals - Endrin, Lindane, Methoxychlor, Toxaphene, 2, 4-D, and 2, 4, 5-TP Silvex